

Online Supplement

Deep Learning Integration of Chest Computed Tomography Imaging and Gene Expression Identifies Novel Aspects of COPD

Junxiang Chen, PhD¹ Zhonghui Xu, MS² Li Sun, MS¹ Ke Yu, MS¹ Craig P. Hersh, MD, MPH^{2,3} Adel Boueiz, MD, MS^{2,3} John E. Hokanson, MPH, PhD⁴ Frank C. Sciurba, MD⁵ Edwin K. Silverman MD, PhD,^{2,3} Peter J. Castaldi, MD, MS^{2,6*} Kayhan Batmanghelich, PhD^{1*}

¹ Department of Biomedical Informatics, University of Pittsburgh, Pittsburgh, Pennsylvania, United States

² Channing Division of Network Medicine, Department of Medicine, Brigham and Women's Hospital, Boston, Massachusetts, United States

³ Division of Pulmonary and Critical Care Medicine, Department of Medicine, Brigham and Women's Hospital, Boston, Massachusetts, United States

⁴ Department of Epidemiology, Colorado School of Public Health, University of Colorado Anschutz Medical Campus, Aurora, Colorado, United States

⁵ Division of Pulmonary, Allergy, and Critical Care Medicine, Department of Medicine, University of Pittsburgh, Pittsburgh, Pennsylvania, United States

⁶ Division of General Internal Medicine and Primary Care, Brigham and Women's Hospital, Boston, Massachusetts, United States

* *Equal contribution*

Table E1. Cross-validation performance in IEA training. Pearson correlation coefficients among IEAs identified in different CV folds are computed to measure the stability of IEAs. We report the mean and standard deviation of the Pearson correlation coefficients in this table. Using a range of thresholds for the adjusted p-value of association between each gene and the CSRL features, we selected different subsets of the genes to include in our model. With each subset, we aligned the IEAs and computed the Pearson correlation coefficients. The threshold of 0.01 gives the highest mean correlation coefficients for both IEAs. Therefore this threshold was selected for the primary analysis.

adj p-value threshold	Number of genes	Pearson's r (IEA emph)	Pearson's r (IEA airway)
1.0	18,487	0.98 ± 0.01	0.96 ± 0.03
0.05	7,089	0.98 ± 0.01	0.95 ± 0.03
0.01	4,685	0.97 ± 0.01	0.96 ± 0.02
0.005	4,012	0.98 ± 0.01	0.93 ± 0.02
0.001	2,802	0.97 ± 0.01	0.54 ± 0.32
0.0005	2,415	0.97 ± 0.01	0.89 ± 0.07
0.0001	1,792	0.97 ± 0.01	0.84 ± 0.17
5e-05	1,583	0.97 ± 0.01	0.89 ± 0.08
1e-05	1,213	0.98 ± 0.01	0.93 ± 0.05
5e-06	1,082	0.98 ± 0.01	0.84 ± 0.12
1e-06	847	0.98 ± 0.01	0.91 ± 0.05

Table E2. Linear Regression with image-expression axes (IEAs) and COPD measurements with COPDGenie visit 2 data. The table reports the β coefficients of linear regression models for estimating the cross-sectional and longitudinal measurements. The values in the brackets are the 95% confidence interval of the β coefficients. We included the models with COPD measurements + IEAs and those with COPD measurements only, and reported the p-values of the likelihood ratio test. The symbol “-” represents that the variable is not used in the corresponding model. The symbols “*”, “**”, and “***” represent p<.05, p<.01, and p<.001, respectively. FEV1 = Forced expiratory volume in 1 second; FVC = Forced vital capacity; perc15 = 15th Percentile Hounsfield unit in Inspiratory CT scan; %Gas Trapping: %LAA using -856 Hounsfield unit threshold on expiratory CT scan; Pi10 = the average wall thickness for a hypothetical airway of 10-mm lumen perimeter on CT; %WA segmental= the percentage of airway wall area for 3rd generation bronchi; Q_perc15_(peel-core)=100 log(perc15_peel / perc15_core), where the peel region is defined to be <5mm from the lung boundary and the core region is >20mm from the lung boundary. Δ FEV_1 %predicted, and Δ FEV_1/FVC are computed by subtracting the visit 3 value from the visit 2 value and dividing it by the number of years between the two visits.

	model	p-values (likelihood ratio test)	IEA emph	IEA airway	Age	Gender, %females	Race, %African-American	Pack Years	Smoking Status
Clinical Measurements									
Body Mass Index (BMI)	COPD measurements	-	-	-	-0.18*** (-0.25, -0.12)	0.04 (-0.01, 0.10)	0.03 (-0.03, 0.09)	0.13*** (0.07, 0.19)	-0.21*** (-0.28, -0.15)
	COPD measurements + IEAs	<.001	-0.18*** (-0.23, -0.13)	0.68*** (0.64, 0.72)	-0.21*** (-0.26, -0.17)	-0.02 (-0.06, 0.02)	0.00 (-0.04, 0.05)	0.08*** (0.04, 0.12)	-0.24*** (-0.28, -0.19)
FEV1 %predicted	COPD measurements	-	-	-	-0.10** (-0.17, -0.04)	0.03 (-0.03, 0.08)	-0.05 (-0.11, 0.01)	-0.22*** (-0.28, -0.16)	0.04 (-0.02, 0.11)
	COPD measurements + IEAs	<.001	-0.59*** (-0.65, -0.53)	-0.06* (-0.10, -0.01)	0.06 (-0.00, 0.11)	-0.13*** (-0.18, -0.08)	-0.18*** (-0.23, -0.12)	-0.14*** (-0.19, -0.09)	-0.01 (-0.07, 0.04)
FEV1 / FVC	COPD measurements	-	-	-	-0.25*** (-0.31, -0.19)	0.08** (0.03, 0.14)	0.01 (-0.05, 0.06)	-0.19*** (-0.25, -0.14)	0.02 (-0.04, 0.08)
	COPD measurements + IEAs	<.001	-0.72*** (-0.77, -0.67)	0.20*** (0.16, 0.24)	-0.09*** (-0.13, -0.04)	-0.11*** (-0.15, -0.07)	-0.14*** (-0.18, -0.09)	-0.13*** (-0.17, -0.09)	-0.06** (-0.10, -0.02)
SGRQ Total Score	COPD measurements	-	-	-	0.05 (-0.01, 0.11)	0.07* (0.01, 0.12)	0.11*** (0.05, 0.17)	0.22*** (0.16, 0.28)	0.02 (-0.04, 0.08)
	COPD measurements + IEAs	<.001	0.53*** (0.47, 0.59)	0.18*** (0.13, 0.23)	-0.11*** (-0.17, -0.05)	0.20*** (0.15, 0.25)	0.23*** (0.17, 0.28)	0.14*** (0.09, 0.19)	0.07* (0.01, 0.12)
mMRC Dyspnea Score	COPD measurements	-	-	-	0.10** (0.04, 0.17)	0.09** (0.04, 0.15)	0.17*** (0.11, 0.23)	0.19*** (0.13, 0.25)	-0.02 (-0.08, 0.05)
	COPD measurements + IEAs	<.001	0.48*** (0.42, 0.54)	0.19*** (0.14, 0.24)	-0.04 (-0.10, 0.02)	0.22*** (0.16, 0.27)	0.27*** (0.22, 0.33)	0.11*** (0.06, 0.16)	0.03 (-0.03, 0.08)
6-Minute-Walk Distance	COPD measurements	-	-	-	-0.24*** (-0.30, -0.18)	-0.11*** (-0.17, -0.06)	-0.25*** (-0.31, -0.19)	-0.22*** (-0.27, -0.16)	-0.01 (-0.07, 0.05)
	COPD measurements + IEAs	<.001	-0.29*** (-0.35, -0.23)	-0.28*** (-0.33, -0.23)	-0.13*** (-0.19, -0.07)	-0.19*** (-0.24, -0.13)	-0.32*** (-0.37, -0.26)	-0.15*** (-0.20, -0.10)	-0.04 (-0.09, 0.02)
Quantitative CT									
perc15	COPD measurements	-	-	-	-0.12*** (-0.18, -0.06)	0.23*** (0.17, 0.28)	0.11*** (0.06, 0.17)	-0.05 (-0.11, 0.00)	0.20*** (0.14, 0.26)
	COPD measurements + IEAs	<.001	-0.70*** (-0.73, -0.68)	0.55*** (0.53, 0.57)	-0.00 (-0.03, 0.02)	0.03* (0.00, 0.05)	-0.01 (-0.04, 0.01)	-0.03** (-0.05, -0.01)	0.11*** (0.09, 0.14)
%Emphysema at -950HU	COPD measurements	-	-	-	0.12*** (0.06, 0.19)	-0.11*** (-0.16, -0.05)	0.03 (-0.02, 0.09)	0.13*** (0.07, 0.19)	-0.17*** (-0.23, -0.11)
	COPD measurements + IEAs	<.001	0.82*** (0.78, 0.86)	-0.29*** (-0.33, -0.26)	-0.05** (-0.09, -0.01)	0.12*** (0.08, 0.15)	0.19*** (0.15, 0.23)	0.06*** (0.03, 0.10)	-0.08*** (-0.12, -0.04)
%Gas trapping	COPD measurements	-	-	-	0.27*** (0.21, 0.33)	-0.10*** (-0.16, -0.05)	0.06 (-0.00, 0.12)	0.14*** (0.08, 0.19)	-0.10** (-0.16, -0.04)
	COPD measurements + IEAs	<.001	0.76*** (0.72, 0.80)	-0.33*** (-0.36, -0.30)	0.11*** (0.07, 0.15)	0.10*** (0.07, 0.14)	0.19*** (0.15, 0.22)	0.08*** (0.04, 0.11)	-0.02 (-0.06, 0.02)
Pi10	COPD measurements	-	-	-	0.09** (0.02, 0.15)	-0.13*** (-0.04, 0.08)	0.04 (0.04, 0.16)	0.14*** (0.09, 0.20)	0.07* (0.01, 0.14)
	COPD measurements + IEAs	<.001	0.30*** (0.24, 0.37)	0.19*** (0.13, 0.24)	-0.01 (-0.08, 0.05)	0.10*** (0.04, 0.16)	0.17*** (0.11, 0.23)	0.09** (0.03, 0.14)	0.10** (0.04, 0.17)
%WA segmental	COPD measurements	-	-	-	0.09** (0.03, 0.16)	-0.13*** (-0.18, -0.07)	0.04 (-0.02, 0.10)	0.14*** (0.08, 0.19)	0.12*** (0.05, 0.18)
	COPD measurements + IEAs	<.001	0.14*** (0.08, 0.20)	0.32*** (0.26, 0.37)	0.02 (-0.05, 0.08)	-0.09** (-0.15, -0.04)	0.07* (0.02, 0.13)	0.08** (0.03, 0.14)	0.13*** (0.07, 0.19)
Q perc15 peel-core	COPD measurements	-	-	-	-0.14*** (-0.20, -0.08)	-0.11*** (-0.17, -0.06)	0.12*** (0.06, 0.18)	-0.18*** (-0.24, -0.13)	0.10*** (0.04, 0.16)
	COPD measurements + IEAs	<.001	-0.31*** (-0.37, -0.25)	-0.21*** (-0.26, -0.16)	-0.03 (-0.10, 0.03)	-0.19*** (-0.24, -0.14)	0.05 (-0.01, 0.11)	-0.12*** (-0.18, -0.07)	0.08* (0.02, 0.13)
Blood Cell Counts									
White Blood Cell Count	COPD measurements	-	-	-	0.02 (-0.05, 0.08)	0.04 (-0.02, 0.10)	-0.15*** (-0.21, -0.09)	0.14*** (0.09, 0.20)	0.08** (0.02, 0.15)
	COPD measurements + IEAs	-	-	-	0.17*** (0.11, 0.24)	0.13*** (0.07, 0.18)	-0.04 (-0.11, 0.02)	0.11*** (0.05, 0.17)	0.10** (0.04, 0.16)
Neutrophils Count	COPD measurements	-	-	-	0.08** (0.02, 0.15)	0.01 (-0.05, 0.06)	-0.18*** (-0.24, -0.12)	0.14*** (0.08, 0.20)	0.06 (-0.00, 0.12)
	COPD measurements + IEAs	-	-	-	0.23*** (0.16, 0.29)	0.10*** (0.04, 0.15)	0.06* (-0.05, 0.08)	0.10*** (0.05, 0.16)	0.08* (0.02, 0.14)
Neutrophils %	COPD measurements	-	-	-	0.18*** (0.12, 0.25)	0.03 (-0.11, 0.00)	0.14*** (-0.27, -0.16)	0.04 (0.01, 0.12)	0.02 (-0.05, 0.07)
	COPD measurements + IEAs	-	-	-	0.18*** (0.11, 0.24)	0.03 (-0.03, 0.08)	-0.05 (0.07, 0.20)	-0.22*** (-0.24, -0.12)	0.01 (-0.02, 0.10)
Lymphocytes Count	COPD measurements	-	-	-	-0.16*** (-0.22, -0.10)	0.16*** (0.11, 0.22)	0.05 (-0.01, 0.11)	0.05 (-0.01, 0.11)	0.08** (0.02, 0.15)
	COPD measurements + IEAs	-	-	-	-0.08* (-0.15, -0.02)	0.10*** (0.05, 0.16)	-0.15*** (-0.22, -0.09)	0.03 (0.08, 0.20)	0.08* (-0.03, 0.10)

Lymphocytes %	COPD measurements				-0.21***	0.15***	0.22***	-0.05	0.01
					(-0.27, -0.15)	(0.10, 0.20)	(0.16, 0.27)	(-0.10, 0.01)	(-0.05, 0.07)
		-0.20***	-0.02		-0.16***	0.10***	0.18***	-0.02	-0.01
	COPD measurements + IEAs				(-0.22, -0.10)	(0.04, 0.15)	(0.12, 0.23)	(-0.07, 0.03)	(-0.06, 0.05)
Monocytes Count	COPD measurements				0.12***	-0.17***	-0.10**	0.07*	0.06
					(0.06, 0.18)	(-0.23, -0.12)	(-0.15, -0.04)	(0.01, 0.13)	(-0.00, 0.12)
		0.15***	0.10***		0.11***	-0.25***	0.06*	0.04	0.07*
	COPD measurements + IEAs				(0.00, 0.13)	(-0.19, -0.08)	(-0.12, -0.00)	(-0.02, 0.10)	(0.01, 0.13)
Monocytes %	COPD measurements				0.04	-0.01	0.10**	-0.23***	0.07*
					(0.05, 0.17)	(-0.30, -0.19)	(0.00, 0.12)	(-0.12, -0.01)	(-0.08, 0.05)
		-0.02, 0.11)	(-0.07, 0.05)		0.11***	-0.25***	0.06*	-0.06*	-0.02
	COPD measurements + IEAs				(0.04, 0.17)	(-0.29, -0.18)	(0.01, 0.13)	(-0.13, -0.01)	(-0.07, 0.05)
Eosinophils Count	COPD measurements				-0.04	-0.10***	-0.06*	0.01	-0.06
					(-0.10, 0.02)	(-0.16, -0.04)	(-0.13, -0.00)	(-0.05, 0.06)	(-0.12, 0.01)
		0.11**	0.04		-0.07*	-0.07*	-0.04	-0.01	-0.05
	COPD measurements + IEAs				(-0.14, -0.01)	(-0.13, -0.01)	(-0.10, 0.02)	(-0.07, 0.05)	(-0.11, 0.02)
Eosinophils %	COPD measurements				-0.05	-0.10***	-0.02	-0.03	-0.10**
					(-0.11, 0.02)	(-0.16, -0.04)	(-0.08, 0.04)	(-0.09, 0.03)	(-0.16, -0.03)
		0.03	-0.02		-0.06	-0.09**	-0.01	-0.03	-0.10**
	COPD measurements + IEAs				(-0.12, 0.01)	(-0.15, -0.03)	(-0.07, 0.05)	(-0.09, 0.03)	(-0.16, -0.03)
Basophils Count	COPD measurements				-0.05	0.00	-0.14***	-0.01	0.06
					(-0.12, 0.01)	(-0.05, 0.06)	(-0.21, -0.08)	(-0.07, 0.04)	(-0.00, 0.13)
		-0.00	0.03		-0.05	0.00	-0.14***	-0.02	0.06
	COPD measurements + IEAs				(-0.12, 0.01)	(-0.06, 0.06)	(-0.21, -0.08)	(-0.08, 0.04)	(-0.00, 0.13)
Basophils %	COPD measurements				-0.07*	-0.04	-0.01	-0.02	-0.01
					(-0.14, -0.01)	(-0.09, 0.02)	(-0.07, 0.05)	(-0.08, 0.04)	(-0.08, 0.05)
		0.01	-0.06*		-0.07*	-0.03	-0.01	-0.02	-0.01
	COPD measurements + IEAs				(-0.14, -0.00)	(-0.09, 0.03)	(-0.07, 0.05)	(-0.08, 0.04)	(-0.07, 0.06)
Longitudinal									
Δ FEV1 %predicted	COPD measurements				0.15**	-0.02	-0.06	-0.05	-0.04
					(0.05, 0.26)	(-0.11, 0.07)	(-0.17, 0.04)	(-0.15, 0.04)	(-0.14, 0.06)
		-0.09	0.05		0.17**	-0.05	-0.09	-0.06	-0.05
	COPD measurements + IEAs				(-0.20, 0.02)	(-0.04, 0.14)	(0.06, 0.28)	(-0.14, 0.05)	(-0.20, 0.02)
Δ FEV1/FVC	COPD measurements				0.04	-0.01	0.01	-0.00	-0.08
					(-0.07, 0.14)	(-0.11, 0.08)	(-0.09, 0.12)	(-0.10, 0.10)	(-0.19, 0.02)
		-0.08	0.03		0.05	-0.04	-0.01	-0.00	-0.09
	COPD measurements + IEAs				(-0.19, 0.04)	(-0.07, 0.12)	(-0.06, 0.16)	(-0.13, 0.06)	(-0.12, 0.10)
								(-0.10, 0.10)	(-0.19, 0.01)

Table E3. Logistic regression and Cox proportional hazard models with image-expression axes (IEA) and COPD measurements with COPDGene visit 2 data. The table reports the β coefficients, the odds/hazard ratio and the corresponding 95% confidence intervals in the logistic regression and Cox model to estimate the frequent exacerbator and mortality. The values in the brackets are the 95% confidence interval. We included the models with COPD measurements + IEAs and the models with COPD measurements only, and reported the p-values of the likelihood ratio test. The symbol "-" represents that the variable is not used in the corresponding model. The symbols "****", "****", and "****" represent $p < 0.05$, $p < 0.01$ and $p < 0.001$, respectively. Frequent exacerbator (history) indicated whether the subject had at least two self-reported exacerbations during the 12 months before the second visit. Frequent exacerbator (future) to represent whether the subject had at least two self-reported exacerbations during the past 12 months before the third visit.

model		p-values (likelihood ratio test)	IEA emph, β (SE)	IEA emph, OR (CI)	IEA airway, β (SE)	IEA airway, OR (CI)	Age, β (SE)	Age, OR (CI)	Gender, %females, β (SE)	Gender, %females, OR (CI)	Race, %African-American, β (SE)	Race, %African-American, OR (CI)	Pack Years, β (SE)	Pack Years, OR (CI)	Smoking Status, β (SE)	Smoking Status, OR (CI)
Logistic Regression Model																
Frequent Exacerbator (History)	COPD measurements	-	-	-	-	-0.20 (-0.47, 0.07)	0.82 (0.63, 1.07)	0.55**** (0.29, 0.80)	1.73**** (1.34, 2.24)	-0.04 (-0.29, 0.21)	0.96 (0.75, 1.23)	0.29** (0.08, 0.51)	1.34** (1.08, 1.66)	-0.14 (-0.40, 0.12)	0.87 (0.67, 1.13)	
	COPD measurements + IEAs	<.001	0.85**** (0.58, 1.12)	2.34**** (1.79, 3.07)	0.12 (-0.10, 0.35)	1.13 (0.90, 1.41)	-0.43** (-0.72, -0.14)	0.65** (0.49, 0.87)	0.79**** (0.52, 1.07)	2.21**** (1.68, 2.91)	0.12 (-0.14, 0.37)	1.12 (0.87, 1.45)	0.19 (-0.04, 0.43)	1.21 (0.96, 1.54)	-0.02 (-0.29, 0.25)	0.98 (0.75, 1.28)
Frequent Exacerbator (Future)	COPD measurements	-	-	-	-	-0.23 (-0.66, 0.21)	0.80 (0.51, 1.24)	0.20 (-0.18, 0.59)	1.23 (0.84, 1.80)	-0.20 (-0.65, 0.24)	0.81 (0.52, 1.27)	0.19 (-0.18, 0.55)	1.21 (0.84, 1.73)	-0.02 (-0.43, 0.39)	0.98 (0.65, 1.48)	
	COPD measurements + IEAs	<.001	0.92**** (0.47, 1.37)	2.51**** (1.60, 3.94)	-0.09 (-0.48, 0.30)	0.91 (0.62, 1.34)	-0.44 (-0.80, 0.02)	0.64 (0.41, 1.02)	0.45* (0.03, 0.86)	1.56* (1.09, 2.36)	0.03 (-0.43, 0.48)	1.03 (0.65, 1.62)	0.15 (-0.27, 0.56)	1.16 (0.77, 1.76)	0.11 (-0.32, 0.54)	1.12 (0.79, 1.72)
Cox Proportional Hazard Model																
Mortality	COPD measurements	-	-	-	-	0.60**** (0.38, 0.81)	1.81**** (1.47, 2.24)	-0.37**** (-0.57, -0.18)	0.69**** (0.57, 0.83)	0.34**** (0.15, 0.52)	1.40**** (1.16, 1.69)	0.20** (0.06, 0.35)	1.23** (1.07, 1.41)	0.14 (-0.06, 0.35)	1.15 (0.94, 1.41)	
	COPD measurements + IEAs	<.001	0.66**** (0.45, 0.87)	1.93**** (1.57, 2.38)	0.17 (-0.00, 0.34)	1.19 (1.00, 1.41)	0.43**** (0.21, 0.64)	1.53**** (1.23, 1.90)	-0.20* (-0.41, -0.00)	0.82* (0.67, 1.00)	0.44**** (0.26, 0.63)	1.56**** (1.29, 1.88)	0.10 (-0.05, 0.26)	1.11 (0.95, 1.29)	0.23* (0.03, 0.43)	1.26* (1.03, 1.54)

Table E4. Pearson’s correlation between image-expression axes (IEAs) and COPD-related characteristics and health outcomes, measured on 1,527 subjects from another subset of the COPDGene dataset that had not been used for model training. The symbols “*”, “**”, and “***” represent $p < .05$, $p < .01$, and $p < .001$, respectively. FEV1 = Forced expiratory volume in 1 second; FVC = Forced vital capacity; perc15 = 15th Percentile Hounsfield unit in Inspiratory CT scan; %Gas Trapping: %LAA using -856 Hounsfield unit threshold on expiratory CT scan; Pi10 = the average wall thickness for a hypothetical airway of 10-mm lumen perimeter on CT; %WA segmental= the percentage of airway wall area for 3rd generation bronchi; $Q_{(perc15_{(peel-core)})} = 100 \log(\text{perc15}_{peel} / \text{perc15}_{core})$, where the peel region is defined to be <5mm from the lung boundary and the core region is >20mm from the lung boundary; $\Delta FEV1$ %predicted and $\Delta FEV1/FVC$ are computed by subtracting the visit 3 values from the visit 2 values of FEV1 %predicted or FEV1/FVC and dividing it by the number of years between the two visits.

	IEA emph (95% CI)	IEA airway (95%CI)
Clinical Measurements		
Smoking Status	-0.08**	0.13***
Body Mass Index (BMI)	-0.15***	0.65***
Pack Years	0.35***	0.25***
FEV1 %predicted	-0.46***	-0.10***
FEV1 / FVC	-0.64***	0.11***
SGRQ Total Score	0.33***	0.20***
mMRC Dyspnea Score	0.29***	0.20***
6-Minute-Walk Distance	-0.22***	-0.29***
Quantitative CT		
perc15	-0.71***	0.53***
%Emphysema at -950HU	0.67***	-0.31***
%Gas Trapping	0.68***	-0.27***
Pi10	0.12***	0.22***
%WA segmental	0.09***	0.35***
Q perc15 peel-core	-0.35***	-0.24***
Blood Cell Counts		
White Blood Cell Count	0.08**	0.15***
Neutrophils Count	0.18***	0.13***
Neutrophils %	0.25***	0.04
Lymphocytes Count	-0.10***	0.08**
Lymphocytes %	-0.30***	-0.05*
Monocytes Count	0.18***	0.11***
Monocytes %	0.13***	-0.01
Eosinophils Count	0.07**	0.14***
Eosinophils %	0.03	0.06*
Basophils Count	0.07**	0.03
Basophils %	-0.02	-0.06*
Longitudinal		
Δ FEV1 %predicted	-0.03	-0.01
Δ FEV1/FVC	-0.10*	0.03
Image-Expression Axes (IEAs)		

IEA emph	1.00***	0.06*
IEA airway	0.06*	1.00***

Table E5. Linear Regression with image-expression axes (IEAs) and COPD measurements with 1,527 subjects from another subset of the COPDgene dataset that had not been used for model training. The table reports the β coefficients of linear regression models for estimating the cross-sectional and longitudinal measurements. The values in the brackets are the 95% confidence interval of the β coefficients. The symbols “*”, “**”, and “***” represent $p < .05$, $p < .01$, and $p < .001$, respectively. FEV1 = Forced expiratory volume in 1 second; FVC = Forced vital capacity; perc15 = 15th Percentile Hounsfield unit in Inspiratory CT scan; %Gas Trapping: %LAA using -856 Hounsfield unit threshold on expiratory CT scan; Pi10 = the average wall thickness for a hypothetical airway of 10-mm lumen perimeter on CT; %WA segmental = the percentage of airway wall area for 3rd generation bronchi; $Q_{(perc15_peel-core)} = 100 \log(\text{perc15_peel} / \text{perc15_core})$, where the peel region is defined to be <5mm from the lung boundary and the core region is >20mm from the lung boundary. ΔFEV_1 %predicted, and $\Delta FEV_1/FVC$ are computed by subtracting the visit 3 value from the visit 2 value and dividing it by the number of years between the two visits.

	IEA emph	IEA airway	Age	Gender, %females	Race, %African-American	Pack Years	Smoking Status
Clinical Measurements							
Body Mass Index (BMI)	-0.18*** (-0.22, -0.13)	0.68*** (0.64, 0.71)	-0.12*** (-0.17, -0.08)	-0.02 (-0.06, 0.01)	0.02 (-0.02, 0.07)	0.10*** (0.05, 0.14)	-0.18*** (-0.22, -0.13)
FEV1 %predicted	-0.52*** (-0.58, -0.47)	-0.03 (-0.08, 0.01)	0.08** (0.03, 0.13)	-0.10*** (-0.15, -0.06)	-0.17*** (-0.22, -0.12)	-0.19*** (-0.24, -0.14)	-0.09** (-0.14, -0.03)
FEV1 / FVC	-0.65*** (-0.70, -0.60)	0.20*** (0.16, 0.24)	-0.05* (-0.09, -0.01)	-0.07*** (-0.10, -0.03)	-0.14*** (-0.18, -0.10)	-0.15*** (-0.20, -0.11)	-0.09*** (-0.14, -0.05)
SGRQ Total Score	0.44*** (0.38, 0.49)	0.14*** (0.09, 0.18)	-0.11*** (-0.16, -0.07)	0.17*** (0.13, 0.22)	0.25*** (0.20, 0.30)	0.25*** (0.20, 0.30)	0.11*** (0.05, 0.16)
mMRC Dyspnea Score	0.40*** (0.35, 0.46)	0.16*** (0.11, 0.20)	-0.08** (-0.13, -0.03)	0.20*** (0.15, 0.24)	0.28*** (0.23, 0.33)	0.21*** (0.16, 0.26)	0.04 (-0.01, 0.09)
6-Minute-Walk Distance	-0.29*** (-0.34, -0.24)	-0.22*** (-0.27, -0.18)	-0.13*** (-0.18, -0.08)	-0.23*** (-0.28, -0.19)	-0.38*** (-0.43, -0.34)	-0.17*** (-0.22, -0.12)	-0.09*** (-0.14, -0.04)
Quantitative CT							
perc15	-0.71*** (-0.74, -0.69)	0.57*** (0.55, 0.59)	-0.01 (-0.04, 0.01)	0.02 (-0.01, 0.04)	-0.04** (-0.06, -0.01)	-0.07*** (-0.09, -0.04)	0.11*** (0.08, 0.13)
%Emphysema at -950HU	0.79*** (0.75, 0.83)	-0.34*** (-0.38, -0.31)	-0.05** (-0.09, -0.02)	0.10*** (0.07, 0.13)	0.22*** (0.18, 0.26)	0.10*** (0.06, 0.14)	-0.06** (-0.10, -0.02)
%Gas trapping	0.72*** (0.68, 0.76)	-0.36*** (-0.39, -0.32)	0.09*** (0.05, 0.12)	0.09*** (0.05, 0.12)	0.22*** (0.18, 0.25)	0.14*** (0.10, 0.18)	0.02 (-0.02, 0.06)
Pi10	0.19*** (0.13, 0.25)	0.16*** (0.12, 0.21)	-0.08** (-0.14, -0.02)	0.07** (0.03, 0.12)	0.19*** (0.13, 0.24)	0.19*** (0.13, 0.25)	0.16*** (0.11, 0.22)
%WA segmental	0.07* (0.01, 0.12)	0.29*** (0.24, 0.33)	-0.03 (-0.08, 0.03)	-0.10*** (-0.15, -0.05)	0.11*** (0.05, 0.16)	0.14*** (0.08, 0.20)	0.21*** (0.15, 0.26)
Q perc15 peel-core	-0.30*** (-0.36, -0.25)	-0.21*** (-0.26, -0.16)	-0.06* (-0.11, -0.00)	-0.17*** (-0.22, -0.12)	0.07* (0.01, 0.12)	-0.06* (-0.12, -0.01)	0.09** (0.04, 0.15)
Blood Cell Counts							
White Blood Cell Count (million/mm3)	0.04 (-0.02, 0.10)	0.12*** (0.06, 0.17)	-0.02 (-0.08, 0.04)	0.04 (-0.01, 0.09)	-0.14*** (-0.20, -0.08)	0.03 (-0.03, 0.09)	0.15*** (0.09, 0.21)
Neutrophil Count (million/mm3)	0.13*** (0.06, 0.19)	0.08** (0.03, 0.13)	-0.02 (-0.07, 0.04)	0.07** (0.02, 0.12)	-0.16*** (-0.22, -0.10)	0.07* (0.01, 0.13)	0.13*** (0.07, 0.19)
Neutrophil %	0.14*** (0.08, 0.21)	-0.01 (-0.06, 0.04)	0.02 (-0.04, 0.08)	0.02 (-0.03, 0.07)	-0.20*** (-0.25, -0.14)	0.08* (0.01, 0.14)	-0.00 (-0.06, 0.06)
Lymphocyte Count (million/mm3)	-0.08* (-0.14, -0.01)	0.09** (0.03, 0.14)	-0.03 (-0.09, 0.03)	0.01 (-0.04, 0.07)	-0.02 (-0.08, 0.04)	-0.04 (-0.10, 0.03)	0.08* (0.02, 0.14)
Lymphocyte %	-0.15*** (-0.21, -0.09)	0.00 (-0.05, 0.05)	-0.07* (-0.13, -0.01)	0.06* (0.01, 0.11)	0.19*** (0.13, 0.24)	-0.08** (-0.14, -0.02)	0.02 (-0.04, 0.08)
Monocyte Count (million/mm3)	0.06 (-0.01, 0.12)	0.06* (0.01, 0.12)	0.13*** (0.07, 0.19)	-0.13*** (-0.18, -0.08)	-0.07* (-0.13, -0.01)	0.01 (-0.06, 0.07)	0.08** (0.02, 0.15)
Monocyte %	0.02 (-0.05, 0.08)	-0.03 (-0.08, 0.02)	0.17*** (0.11, 0.23)	-0.22*** (-0.27, -0.16)	0.07* (0.01, 0.13)	-0.02 (-0.08, 0.05)	-0.07* (-0.13, -0.01)
Eosinophil Count (million/mm3)	-0.00 (-0.07, 0.06)	0.11*** (0.06, 0.17)	0.04 (-0.02, 0.10)	-0.07** (-0.12, -0.02)	-0.05 (-0.11, 0.01)	0.02 (-0.04, 0.09)	0.07* (0.01, 0.13)
Eosinophil %	-0.02 (-0.09, 0.04)	0.05 (-0.00, 0.10)	0.05 (-0.01, 0.11)	-0.09*** (-0.15, -0.04)	0.02 (-0.04, 0.08)	0.03 (-0.04, 0.09)	-0.02 (-0.08, 0.04)
Basophil Count (million/mm3)	0.06 (-0.01, 0.12)	0.01 (-0.04, 0.06)	-0.05 (-0.11, 0.01)	-0.02 (-0.08, 0.03)	-0.13*** (-0.19, -0.07)	-0.01 (-0.08, 0.05)	0.11*** (0.04, 0.17)
Basophil %	0.04 (-0.03, 0.10)	-0.05 (-0.10, 0.00)	-0.11*** (-0.17, -0.05)	-0.06* (-0.11, -0.00)	0.01 (-0.05, 0.07)	-0.02 (-0.09, 0.04)	0.06 (-0.01, 0.12)
Longitudinal							
Δ FEV1 %predicted	-0.12* (-0.23, -0.02)	-0.01 (-0.10, 0.08)	0.17*** (0.07, 0.27)	-0.07 (-0.16, 0.02)	-0.05 (-0.15, 0.06)	-0.06 (-0.17, 0.04)	-0.12* (-0.23, -0.02)
Δ FEV1/FVC	-0.12* (-0.22, -0.01)	0.10* (0.01, 0.19)	0.02 (-0.08, 0.13)	-0.14** (-0.23, -0.05)	-0.05 (-0.15, 0.05)	-0.17** (-0.27, -0.06)	-0.11* (-0.21, -0.01)

Table E6. Logistic regression and Cox proportional hazard models with image-expression axes (IEAs) and COPD measurements with 1,527 subjects from another subset of the COPDGen dataset that had not been used for model training. The table reports the β coefficients, the odds/hazard ratio and the corresponding 95% confidence intervals in the logistic regression and Cox model to estimate the frequent exacerbator and mortality. The values in the brackets are the 95% confidence interval. We included the models with COPD measurements + IEAs and the models with COPD measurements only, and reported the p-values of the likelihood ratio test. The symbol “-” represents that the variable is not used in the corresponding model. The symbols “*”, “***”, and “****” represent $p < .05$, $p < .01$ and $p < .001$, respectively. Frequent exacerbator (history) indicated whether the subject had at least two self-reported exacerbations during the 12 months before the second visit. Frequent exacerbator (future) to represent whether the subject had at least two self-reported exacerbations during the past 12 months before the third visit.

	IEA emph, β (SE)	IEA emph, OR (CI)	IEA airway, β (SE)	IEA airway, OR (CI)	Age, β (SE)	Age, OR (CI)	Gender, %females, β (SE)	Gender, %females, OR (CI)	Race, %African- American, β (SE)	Race, %African- American, OR (CI)	Pack Years, β (SE)	Pack Years, OR (CI)	Smoking Status, β (SE)	Smoking Status, OR (CI)
Logistic Regression Model														
Frequent Exacerbator (History)	0.96*** (0.73, 1.19)	2.61*** (2.07, 3.30)	0.18 (-0.01, 0.36)	1.19 (0.99, 1.44)	-0.36** (-0.60, -0.12)	0.70** (0.55, 0.89)	0.32** (0.11, 0.52)	1.37** (1.12, 1.68)	0.19 (-0.02, 0.41)	1.22 (0.98, 1.51)	0.19 (-0.02, 0.41)	1.21 (0.98, 1.50)	0.13 (-0.13, 0.38)	1.14 (0.88, 1.46)
Frequent Exacerbator (Future)	0.85*** (0.40, 1.30)	2.34*** (1.50, 3.65)	-0.04 (-0.42, 0.34)	0.96 (0.66, 1.40)	-0.35 (-0.86, 0.17)	0.71 (0.42, 1.18)	0.53* (0.11, 0.94)	1.69* (1.12, 2.57)	0.35 (-0.05, 0.76)	1.43 (0.95, 2.14)	0.46* (0.06, 0.86)	1.59* (1.07, 2.36)	0.16 (-0.36, 0.68)	1.17 (0.70, 1.97)
	IEA emph, β (SE)	IEA emph, HR (CI)	IEA airway, β (SE)	IEA airway, HR (CI)	Age, β (SE)	Age, HR (CI)	Gender, %females, β (SE)	Gender, %females, HR (CI)	Race, %African- American, β (SE)	Race, %African- American, HR (CI)	Pack Years, β (SE)	Pack Years, HR (CI)	Smoking Status, β (SE)	Smoking Status, OR (HI)
Cox Proportional Hazard Model														
Mortality	0.55*** (0.33, 0.77)	1.73*** (1.39, 2.15)	-0.05 (-0.24, 0.14)	0.95 (0.78, 1.15)	0.72*** (0.48, 0.96)	2.06*** (1.61, 2.62)	-0.01 (-0.20, 0.18)	0.99 (0.82, 1.19)	0.50*** (0.28, 0.72)	1.65*** (1.33, 2.05)	0.28** (0.11, 0.45)	1.32** (1.11, 1.57)	0.45*** (0.22, 0.68)	1.57*** (1.25, 1.98)

Table E7. The correlation between perc15 ratio and IEAs. We divide the lung into regions based on the distance to the boundaries of the lung, as shown in Supplemental Figure E3. We compute the logarithm of the perc15 ratio with different regions. The symbols “*”, “**”, and “***” represent p<.05, p<.01, and p<.001, respectively. No symbol represents the result is not statistically significant.

	IEA emph	IEA airway
log(perc15 (0-5mm) / perc15 (20+mm))	-0.36***	-0.32***
log(perc15 (5-10mm) / perc15 (20+mm))	-0.40***	-0.08
log(perc15 (10-15mm) / perc15 (20+mm))	-0.36***	-0.02
log(perc15 (15-20mm) / perc15 (20+mm))	-0.34***	-0.00

Table E8. Characteristics of subgroups defined by dividing the Image-Expression Axes (IEAs) into quadrants. Low and high indicates whether the corresponding IEA is less than or greater than zero, respectively. Continuous variables are expressed as means and standard deviations. Categorical variables are expressed as percentages. P-values are obtained using the Analysis of Variance (ANOVA) for the continuous variables and chi-square test for the proportions. FEV1 = Forced expiratory volume in 1 second; FVC = Forced vital capacity; perc15 = 15th Percentile Hounsfield unit in Inspiratory CT scan; %Gas Trapping: %LAA using -856 Hounsfield unit threshold on expiratory CT scan; Pi10 = the average wall thickness for a hypothetical airway of 10-mm lumen perimeter on CT; %WA segmental= the percentage of airway wall area for 3rd generation bronchi; $Q_{(perc15_{(peel-core)})} = 100 \log\left[\frac{perc15_{peel}}{perc15_{core}}\right]$, where the lung region that is not more than 5mm from the boundaries of the lung and the core region to be more than 20mm from the lung boundary. Frequent exacerbator (history) indicated whether the subject had at least two self-reported exacerbations during the 12 months before the second visit. Frequent exacerbator (future) to represented whether the subject had at least two self-reported exacerbations during the past 12 months before the third visit. $\Delta FEV1$ %predicted and $\Delta FEV1/FVC$ are computed by subtracting the visit 3 value from the visit 2 value of FEV1 or FEV1/FVC and dividing it by the number of years between the two visits.

	low IEA emph / low IEA airway	low IEA emph / high IEA airway	high IEA emph / low IEA airway	high IEA emph / high IEA airway	p-values
Demographics					
Age	62.9 ± 8.3	65.0 ± 8.4	68.5 ± 7.7	70.8 ± 7.9	<.001
Gender, %females	62.1%	68.9%	39.4%	26.0%	<.001
Race, %African-American	28.2%	24.7%	12.7%	7.4%	<.001
Clinical Measurements					
%Current Smoker	40.1%	35.1%	22.7%	19.3%	<.001
Body Mass Index (BMI)	26.6 ± 4.4	33.8 ± 6.3	25.3 ± 4.0	31.6 ± 6.0	<.001
Pack Years	38.0 ± 22.6	41.7 ± 20.6	46.3 ± 22.1	54.4 ± 29.7	<.001
FEV1%predicted	89.2 ± 17.6	82.8 ± 18.5	65.7 ± 29.8	69.4 ± 24.6	<.001
FEV1/FVC	0.74 ± 0.09	0.76 ± 0.08	0.55 ± 0.16	0.62 ± 0.15	<.001
SGRQ Total Score	12.9 ± 15.5	20.8 ± 18.6	26.2 ± 20.5	27.7 ± 21.3	<.001
mMRC Dyspnea Score	0.6 ± 1.0	1.2 ± 1.4	1.4 ± 1.4	1.5 ± 1.5	<.001
6-Minute-Walk Distance	1452 ± 371	1228 ± 399	1300 ± 446	1113 ± 484	<.001
Frequent Exacerbator (History)	3.2%	6.7%	9.9%	7.1%	0.008
Quantitative CT					
perc15	-918 ± 13	-893 ± 23	-949 ± 20	-928 ± 25	<.001
%Emphysema at -950HU	2.5 ± 2.8	0.9 ± 1.2	16.5 ± 13.5	8.3 ± 9.7	<.001
%Gas Trapping	12.7 ± 11.0	7.3 ± 6.3	40.0 ± 21.6	25.0 ± 18.0	<.001
Pi10	2.0 ± 0.5	2.3 ± 0.6	2.3 ± 0.6	2.4 ± 0.6	<.001
%WA segmental	46.6 ± 7.6	51.5 ± 7.7	49.7 ± 8.3	52.8 ± 7.9	<.001
Q perc15 peel-core	-1.8 ± 1.3	-2.5 ± 1.3	-2.7 ± 1.7	-3.2 ± 1.7	<.001
Gold Stages					
%GOLD 0	58.8%	55.9%	21.3%	27.5%	<.001
%GOLD 1	10.3%	2.0%	12.7%	9.7%	<.001
%GOLD 2	16.5%	12.4%	24.4%	24.5%	<.001
%GOLD 3	0.6%	3.0%	22.5%	19.0%	<.001
%GOLD 4	0.3%	0.7%	13.0%	5.2%	<.001
%PRISm	12.4%	24.4%	4.1%	11.2%	<.001
Blood Cell Count					
White Blood Cell Count (million/mm3)	6.7 ± 1.9	7.3 ± 2.1	7.2 ± 2.0	7.6 ± 1.9	<.001
Neutrophil Count (million/mm3)	3.9 ± 1.5	4.3 ± 1.5	4.5 ± 1.7	4.8 ± 1.7	<.001
Neutrophil %	57.6 ± 9.9	58.2 ± 8.9	61.8 ± 9.6	62.8 ± 9.8	<.001
Lymphocyte Count (million/mm3)	2.0 ± 0.7	2.2 ± 0.9	1.8 ± 0.6	1.9 ± 0.7	<.001
Lymphocyte %	31.1 ± 9.2	30.8 ± 8.7	26.3 ± 8.5	25.2 ± 8.8	<.001
Monocyte Count (million/mm3)	0.5 ± 0.2	0.5 ± 0.2	0.6 ± 0.2	0.6 ± 0.2	<.001
Monocyte %	8.0 ± 2.4	7.7 ± 2.2	8.4 ± 2.4	8.6 ± 2.5	<.001
Eosinophil Count (million/mm3)	0.2 ± 0.2	0.2 ± 0.1	0.2 ± 0.2	0.2 ± 0.1	0.006

Eosinophil %	2.6 ± 2.1	2.6 ± 2.0	2.9 ± 1.9	2.8 ± 1.7	0.199
Basophil Count (million/mm ³)	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0	0.668
Basophil %	0.6 ± 0.6	0.6 ± 0.6	0.7 ± 0.6	0.6 ± 0.5	0.352
Longitudinal					
ΔFEV1%predicted	-0.4 ± 2.4	-0.2 ± 1.9	-0.4 ± 2.1	0.2 ± 1.8	0.177
ΔFEV1/FVC	-0.0 ± 0.0	-0.0 ± 0.0	-0.0 ± 0.0	-0.0 ± 0.0	0.557
Frequent Exacerbator (Future)	3.5%	4.2%	10.3%	5.2%	0.048
5-year Mortality	8.3%	8.2%	17.7%	26.7%	<.001

Table E9. Covariances between Image-expression Axes (IEAs), factor analysis axes (FAs), and PCA image-only axes (PCA-Is) on COPDGene visit 1 data. The symbols “*”, “**”, and “***” represent p<.05, p<.01, and p<.001, respectively. No symbol represents the result is not statistically significant.

	IEA emph	IEA airway	FA emph	FA airway	PCA-I1	PCA-I2
Image-Expression Axes (IEAs)						
IEA emph	1.00***	0.03	0.59***	0.16***	0.46***	0.51***
IEA airway	0.03	1.00***	-0.52***	0.35***	-0.76***	0.41***
Factor Analysis Axes (FAs)						
FA emph	0.59***	-0.52***	1.00***	-0.07*	0.60***	0.01
FA airway	0.16***	0.35***	-0.07*	1.00***	-0.20***	0.04
PCA image only Axes (PCA-Is)						
PCA-I1	0.46***	-0.76***	0.60***	-0.20***	1.00***	-0.04
PCA-I2	0.51***	0.41***	0.01	0.04	-0.04	1.00***

Table E10. Pearson's correlation coefficient between image-expression axes (IEAs), factor analysis axes (FAs), PCA image only axes (PCA-Is), and health outcomes on COPDGen visit 1 data. The symbols "*", "**", and "***" represent p<.05, p<.01, and p<.001, respectively. No symbol represents the result is not statistically significant. PCA-I1 and PCA-I2 are the top-2 Principal components (PCs) of the CSRL image features. FEV1 = Forced expiratory volume in 1 second; FVC = Forced vital capacity; perc15 = 15th Percentile Hounsfield unit in Inspiratory CT scan; %Gas Trapping: %LAA using -856 Hounsfield unit threshold on expiratory CT scan; Pi10 = the average wall thickness for a hypothetical airway of 10-mm lumen perimeter on CT; %WA segmental= the percentage of airway wall area for 3rd generation bronchi. Frequent exacerbator (history) indicated whether the subject had at least two self-reported exacerbations during the 12 months before the first visit. Frequent exacerbator (future) to represent whether the subject had at least two self-reported exacerbations during the past 12 months before the second visit. The longitudinal variables are computed by subtracting the corresponding values in visit 2 with the visit 1 value and dividing it by the number of years between the two visits.

	IEA emph	IEA airway	FA emph	FA airway	PCA-I1	PCA-I2
Clinical Measurements						
Smoking Status	-0.33***	-0.02	-0.23***	0.04	0.06	-0.20***
Body Mass Index (BMI)	-0.11***	0.59***	-0.21***	0.11***	0.63***	0.35***
Pack Years	0.22***	0.11***	0.07*	0.22***	-0.02	0.21***
FEV1%predicted	-0.46***	-0.07*	-0.35***	-0.80***	0.16***	-0.12***
FEV1/FVC	-0.63***	0.15***	-0.56***	-0.53***	0.46***	-0.15***
SGRQ Total Score	0.31***	0.17***	0.21***	0.50***	-0.04	0.12***
mMRC Dyspnea Score	0.29***	0.18***	0.21***	0.45***	0	0.08**
6-Minute-Walk Distance	-0.18***	-0.27***	-0.09**	-0.44***	-0.15***	-0.05
Quantitative CT						
perc15	-0.68***	0.40***	-0.71***	-0.10**	0.63***	-0.19***
%Emphysema at -950HU	0.68***	-0.22***	0.67***	0.33***	-0.49***	0.13***
%Gas Trapping	0.66***	-0.23***	0.63***	0.42***	-0.50***	0.12***
Pi10	0.19***	0.20***	0.08*	0.64***	0.09**	0.11***
%WA segmental	0.15***	0.35***	-0.09**	0.55***	0.25***	0.27***
Blood Cell Count						
White Blood Cell Count	0.15***	0.10**	0.04	0.21***	0.01	0.10***
Neutrophil Count	0.23***	0.08**	0.08**	0.23***	-0.04	0.13***
Neutrophil %	0.29***	0.04	0.10**	0.16***	-0.10***	0.16***
Lymphocyte Count	-0.23***	0.06*	-0.11***	-0.01	0.15***	-0.12***
Lymphocyte %	-0.37***	-0.03	-0.13***	-0.16***	0.15***	-0.24***
Monocyte Count	0.23***	0.10**	0.06	0.17***	-0.05	0.21***
Monocyte %	0.14***	0.01	0.06*	0.02	-0.06*	0.15***
Eosinophil Count	0.14***	0.04	0.03	0.07*	-0.06*	0.13***
Eosinophil %	0.08**	-0.01	0.01	-0.02	-0.06*	0.08**
Basophil Count	0.05	0	0	0.02	-0.04	0.05
Basophil %	0.01	-0.04	0.01	0	-0.05	0
Longitudinal						
ΔFEV1%predicted	-0.07	0.06	-0.04	0.16**	0.10*	-0.04
ΔFEV1/FVC	-0.00	0.07	-0.07	0.13**	0.03	0.05

Table E11. Linear regression analysis with image-expression axes (IEAs) and factor analysis axes (FAs) on COPDGene visit 1 data. The table reports the β coefficients and the corresponding 95% confidence intervals. We included the models with FAs + IEAs and the models with FAs only, and reported the p-values of the likelihood ratio test. The symbol “-” represents that the variable is not used in the corresponding model. The symbols “*”, “**”, and “***” represent $p < .05$, $p < .01$, and $p < .001$, respectively. FEV1 = Forced expiratory volume in 1 second; FVC = Forced vital capacity; perc15 = 15th Percentile Hounsfield unit in Inspiratory CT scan; %Gas Trapping: %LAA using -856 Hounsfield unit threshold on expiratory CT scan; Pi10 = the average wall thickness for a hypothetical airway of 10-mm lumen perimeter on CT; %WA segmental= the percentage of airway wall area for 3rd generation bronchi. The longitudinal variables are computed by subtracting the corresponding values in visit 2 from the visit 1 value and dividing it by the number of years between the two visits.

		p-values (likelihood ratio test)	IEA emph	IEA airway	FA emph	FA airway
Cross-Sectional						
FEV1 %predicted	FAs	<.001	-	-	-0.40*** (-0.42, -0.39)	-0.91*** (-0.93, -0.90)
	FAs + IEAs		-0.18*** (-0.20, -0.17)	0.10*** (0.08, 0.11)	-0.21*** (-0.26, -0.16)	-0.91*** (-0.92, -0.89)
FEV1 / FVC	FAs	<.001	-	-	-0.60*** (-0.63, -0.56)	-0.60*** (-0.64, -0.57)
	FAs + IEAs		-0.42*** (-0.47, -0.38)	0.27*** (0.23, 0.31)	-0.21*** (-0.26, -0.16)	-0.60*** (-0.63, -0.57)
SGRQ Total Score	FAs	<.001	-	-	0.21*** (0.16, 0.26)	0.55*** (0.50, 0.60)
	FAs + IEAs		-0.03 (-0.10, 0.05)	0.15*** (0.08, 0.22)	0.30*** (0.21, 0.38)	0.51*** (0.45, 0.56)
mMRC Dyspnea Score	FAs	<.001	-	-	0.20*** (0.15, 0.25)	0.51*** (0.46, 0.56)
	FAs + IEAs		-0.09* (-0.17, -0.02)	0.23*** (0.16, 0.30)	0.37*** (0.29, 0.46)	0.46*** (0.40, 0.51)
6-Minute-Walk Distance	FAs	<.001	-	-	-0.09** (-0.14, -0.03)	-0.44*** (-0.49, -0.38)
	FAs + IEAs		0.26*** (0.18, 0.33)	-0.33*** (-0.40, -0.25)	-0.41*** (-0.49, -0.32)	-0.39*** (-0.45, -0.33)
Longitudinal						
Δ FEV1 %predicted	FAs	0.195	-	-	-0.01 (-0.11, 0.09)	0.16** (0.06, 0.26)
	FAs + IEAs		-0.12 (-0.25, 0.01)	0.03 (-0.11, 0.17)	-0.07 (-0.09, 0.22)	0.18** (0.07, 0.28)
Δ FEV1/FVC	FAs	0.244	-	-	-0.04 (-0.14, 0.06)	0.13* (0.02, 0.23)
	FAs + IEAs		0.07 (-0.06, 0.21)	-0.11 (-0.26, 0.03)	-0.14 (-0.30, 0.02)	0.15** (0.04, 0.26)

Table S12. Logistic regression and Cox model with image-expression axes (EAs) and factor analysis axes (FAs) on COVID-19 data. The table reports the β coefficients, the odds/hazard ratio, and the corresponding 95% confidence interval in logistic regression and the Cox model for survival the frequent exacerbator and mortality. We included the models with FAs + EAs and the models with FAs only, and reported the p-values of the likelihood ratio test. The values in the brackets are the 95% confidence interval. The symbol "-" represents that the variable is not used in the corresponding model. The symbols ">", ">", ">", and ">", respectively, represent p < 0.05, p < 0.01, p < 0.001, and p < 0.0001, respectively. Frequent exacerbator (History) indicated whether the subject had at least two self-reported exacerbations during the 12 months before the first visit. Frequent exacerbator (Future) to represent whether the subject had at least two self-reported exacerbations during the past 12 months before the second visit. OR = odds ratio, HR = hazard ratio, SE = standard error, CI = 95% confidence interval.

		p-values (likelihood ratio test)	EA empH, β (SE)	EA empH, HR (CI)	EA Airway, β (SE)	EA Airway, HR (CI)	FA empH, β (SE)	FA empH, HR (CI)	FA Airway, β (SE)	FA Airway, HR (CI)
Logistic Regression Model										
Frequent Exacerbator (History)	FAs	-	-	-	-	-	0.31	1.33	0.93***	2.38***
	FAs + EAs	0.02	0.0	1.0	0.3**	1.42*	0.42	1.50(0.99, 2.28)	0.64***	2.11***
Frequent Exacerbator (Future)	FAs	-	-	-	-	-	0.48***	1.62***	0.91***	2.52***
	FAs + EAs	0.384	-0.24	0.79	0.18	1.39	0.75**	2.12**	0.94***	2.58***
Cox Proportional Hazard Model										
Mortality	FAs	-	-	-	-	-	0.34***	1.42***	0.52***	1.68***
	FAs + EAs	<0.01	0.42**	1.52**	0.15	1.16	0.36	1.48	0.51***	1.64***

Table E13. Linear regression analysis with image-expression axes (IEAs) and PCA Image Only Axes (PCA-Is) on COPDGene visit 1 data. The table reports the β coefficients of linear models for estimating the cross-sectional and longitudinal measurements. The values in the brackets are the 95% confidence interval of the β coefficients. PCA-I1 and PCA-I2 are the top-2 Principal components (PCs) of the image CSRL features. The symbol "-" represents that the variable is not used in the corresponding model. The symbols "*", "**", and "***" represent $p < .05$, $p < .01$, and $p < .001$, respectively. FEV1 = Forced expiratory volume in 1 second; FVC = Forced vital capacity; perc15 = 15th Percentile Hounsfield unit in Inspiratory CT scan; %Gas Trapping: %LAA using -856 Hounsfield unit threshold on expiratory CT scan; Pi10 = the average wall thickness for a hypothetical airway of 10-mm lumen perimeter on CT; %WA segmental= the percentage of airway wall area for 3rd generation bronchi. The longitudinal Δ variables are computed by subtracting the corresponding values in visit 2 from the visit 1 value and dividing it by the number of years between the two visits.

		p-values (likelihood ratio test)	IEA emph	IEA airway	PCA_I1	PCA_I2
Cross-Sectional						
FEV1 %predicted	PCA-Is	<.001	-	-	0.12*** (0.06, 0.18)	-0.12*** (-0.18, -0.06)
	PCA-Is + IEAs		-0.64*** (-0.72, -0.55)	-0.13* (-0.24, -0.01)	-0.09 (-0.21, 0.03)	0.27*** (0.20, 0.34)
FEV1 / FVC	PCA-Is	<.001	-	-	0.47*** (0.41, 0.52)	-0.17*** (-0.22, -0.12)
	PCA-Is + IEAs		-0.61*** (-0.68, -0.54)	-0.09 (-0.18, 0.01)	0.23*** (0.13, 0.34)	0.19*** (0.13, 0.25)
SGRQ Total Score	PCA-Is	<.001	-	-	0.02 (-0.04, 0.08)	0.07* (0.01, 0.13)
	PCA-Is + IEAs		0.29*** (0.20, 0.38)	0.27*** (0.15, 0.40)	-0.04 (-0.18, 0.09)	-0.18*** (-0.26, -0.11)
mMRC Dyspnea Score	PCA-Is	<.001	-	-	0.07* (0.01, 0.13)	0.04 (-0.02, 0.10)
	PCA-Is + IEAs		0.34*** (0.25, 0.43)	0.23*** (0.11, 0.35)	0.07 (-0.07, 0.20)	-0.23*** (-0.30, -0.16)
6-Minute-Walk Distance	PCA-Is	<.001	-	-	-0.21*** (-0.26, -0.15)	0.11*** (0.05, 0.17)
	PCA-Is + IEAs		-0.31*** (-0.40, -0.22)	-0.20*** (-0.32, -0.08)	-0.21** (-0.34, -0.08)	0.35*** (0.28, 0.43)
Longitudinal						
Δ FEV1 %predicted	PCA-Is	0.996	-	-	0.10* (0.01, 0.20)	-0.04 (-0.14, 0.05)
	PCA-Is + IEAs		-0.00 (-0.17, 0.16)	0.09 (-0.14, 0.33)	0.09 (-0.14, 0.33)	-0.04 (-0.18, 0.09)
Δ FEV1/FVC	PCA-Is	0.201	-	-	0.03 (-0.07, 0.13)	0.05 (-0.04, 0.15)
	PCA-Is + IEAs		-0.11 (-0.27, 0.05)	-0.16 (-0.39, 0.07)	-0.16 (-0.39, 0.07)	0.04 (-0.09, 0.18)

Table E14. Logistic regression and Cox model with image-expression axes (IEAs) and PCA Image Only Axes (PCA-Is) on COPDGene visit 1 data. The table reports the β coefficients, the odds/hazard ratio, and the corresponding 95% confidence interval in logistic regression and the Cox model to estimate the frequent exacerbator and mortality. We included the models with PCA-Is + IEAs and the models with PCA-Is only and reported the p-values of the likelihood ratio test. The values in the brackets are the 95% confidence interval. The symbol "-" represents that the variable is not used in the corresponding model. In the table, PCA-11 and PCA-12 are the top-2 Principal components (PCs) of the CSRL image features. The symbols "*", "**", and "***" represent p<.05, p<.01, and p<.001, respectively. Frequent exacerbator (history) indicated whether the subject had at least two self-reported exacerbations during the 12 months before the first visit. Frequent exacerbator (future) to represent whether the subject had at least two self-reported exacerbations during the past 12 months before the second visit. OR = odds ratio. HR = hazard ratio. SE = standard error. CI = 95% confidence interval.

		p-values (likelihood ratio test)	IEA emph, β (SE)	IEA emph, OR (CI)	IEA airway, β (SE)	IEA airway, OR (CI)	PCA-11, β (SE)	PCA-11, OR (CI)	PCA-12, β (SE)	PCA-12, OR (CI)
Logistic Regression Model										
Frequent Exacerbator (History)	PCA-Is	<.001	-	-	-	-	-0.23*** (-0.30, -0.15)	0.80*** (0.74, 0.86)	0.14*** (0.07, 0.21)	1.15*** (1.07, 1.23)
	PCA-Is + IEAs		0.86*** (0.73, 0.98)	2.36*** (2.08, 2.67)	-0.08 (-0.25, 0.09)	0.92 (0.78, 1.09)	0.31** (0.12, 0.50)	1.36** (1.13, 1.64)	-0.24*** (-0.33, -0.14)	0.79*** (0.72, 0.87)
Frequent Exacerbator (Future)	PCA-Is	<.001	-	-	-	-	-0.23*** (-0.33, -0.12)	0.80*** (0.72, 0.88)	0.09 (-0.02, 0.19)	1.09 (0.98, 1.21)
	PCA-Is + IEAs		0.73*** (0.57, 0.90)	2.08*** (1.77, 2.46)	-0.24* (-0.48, -0.01)	0.79* (0.62, 0.99)	0.33* (0.08, 0.58)	1.39* (1.08, 1.79)	-0.20** (-0.34, -0.07)	0.82** (0.71, 0.93)
Cox Proportional Hazard Model										
		p-values (likelihood ratio test)	IEA emph, β (SE)	IEA emph, HR (CI)	IEA airway, β (SE)	IEA airway, HR (CI)	PCA-11, β (SE)	PCA-11, HR (CI)	PCA-12, β (SE)	PCA-12, HR (CI)
Mortality	PCA-Is	<.001	-	-	-	-	-0.34*** (-0.39, -0.29)	0.71*** (0.68, 0.75)	0.16*** (0.11, 0.20)	1.17*** (1.12, 1.22)
	PCA-Is + IEAs		0.84*** (0.77, 0.92)	2.32*** (2.15, 2.51)	0.26*** (0.16, 0.36)	1.30*** (1.17, 1.44)	-0.07 (-0.18, 0.05)	0.94 (0.84, 1.05)	-0.32*** (-0.37, -0.26)	0.73*** (0.69, 0.77)

Table E15. Differentially Expressed Genes (DEGs) associated with the IEAemph (adjusted p-value < .10). We performed differential gene expression using the limma R package (v3.38.3). We adjusted for the following covariates: age, race, gender, pack-years of smoking, current smoking status, forced expiratory volume in one second (FEV1), CBC cell count proportions, library prep batch, and CT scanner model. Multiple comparisons were corrected with the Benjamini-Hochberg method.

Ensembl Gene ID	HUGO Gene Name	beta	Adjusted p-values
ENSG00000137462	TLR2	0.147	1.88E-09
ENSG00000188921	HACD4	0.070	1.88E-09
ENSG00000164506	STXBP5	0.081	3.27E-09
ENSG00000184613	NELL2	-0.163	5.77E-09
ENSG00000157514	TSC22D3	0.110	1.33E-08
ENSG00000166523	CLEC4E	0.157	4.83E-08
ENSG00000185862	EVI2B	0.083	4.83E-08
ENSG00000169902	TPST1	0.208	4.83E-08
ENSG00000198673	TAF12	0.121	4.83E-08
ENSG00000113532	ST8SIA4	0.081	5.35E-08
ENSG00000114316	USP4	0.070	5.35E-08
ENSG00000143384	MCL1	0.077	6.18E-08
ENSG00000170852	KBTBD2	0.052	7.63E-08
ENSG00000282988	AL031777.2	0.163	7.63E-08
ENSG00000062716	VMP1	0.102	7.63E-08
ENSG00000119900	OGFRL1	0.092	7.83E-08
ENSG00000064225	ST3GAL6	0.110	7.83E-08
ENSG00000164938	TP53INP1	0.081	7.83E-08
ENSG00000110934	BIN2	0.049	7.83E-08
ENSG00000019991	HGF	0.106	1.09E-07
ENSG00000249274	PDLIM1P4	0.140	1.14E-07
ENSG00000174718	RESF1	0.083	1.18E-07
ENSG00000185950	IRS2	0.120	1.40E-07
ENSG00000143365	RORC	-0.195	1.45E-07
ENSG00000136867	SLC31A2	0.113	1.58E-07
ENSG00000120129	DUSP1	0.124	1.91E-07
ENSG00000274536	MIR223HG	0.098	2.21E-07
ENSG00000132155	RAF1	0.077	2.53E-07
ENSG00000011198	ABHD5	0.115	2.57E-07
ENSG00000206344	HCG27	0.106	2.60E-07
ENSG00000144228	SPOPL	0.079	2.72E-07
ENSG00000246263	UBR5-AS1	0.101	2.82E-07
ENSG00000161405	IKZF3	-0.087	2.82E-07
ENSG00000180509	KCNE1	0.138	3.05E-07
ENSG00000246363	LINC02458	0.258	3.05E-07
ENSG00000260916	CCPG1	0.086	3.23E-07
ENSG00000285693	AP002381.2	0.100	3.35E-07
ENSG00000134954	ETS1	-0.065	3.56E-07

ENSG00000062524	LTK	-0.188	3.70E-07
ENSG00000109133	TMEM33	0.056	3.96E-07
ENSG00000171862	PTEN	0.085	4.21E-07
ENSG00000119979	DENND10	0.070	4.32E-07
ENSG00000067082	KLF6	0.058	4.39E-07
ENSG00000144909	OSBPL11	0.062	4.46E-07
ENSG00000137414	FAM8A1	0.086	4.46E-07
ENSG00000106799	TGFBR1	0.060	4.51E-07
ENSG00000155099	PIP4P2	0.095	4.56E-07
ENSG00000151414	NEK7	0.058	4.80E-07
ENSG00000166439	RNF169	0.047	5.38E-07
ENSG00000068366	ACSL4	0.075	5.67E-07
ENSG00000123684	LPGAT1	0.071	5.68E-07
ENSG00000145982	FARS2	-0.069	5.68E-07
ENSG00000153310	CYRIB	0.063	6.50E-07
ENSG00000197329	PELI1	0.093	6.65E-07
ENSG00000181826	RELL1	0.097	6.79E-07
ENSG00000080815	PSEN1	0.060	6.79E-07
ENSG00000113580	NR3C1	0.043	6.95E-07
ENSG00000261055	AL450468.2	0.200	7.32E-07
ENSG00000172197	MBOAT1	0.060	7.61E-07
ENSG00000124203	ZNF831	-0.077	9.43E-07
ENSG00000073737	DHRS9	0.148	1.01E-06
ENSG00000131016	AKAP12	0.302	1.03E-06
ENSG00000235532	LINC00402	-0.134	1.03E-06
ENSG00000152926	ZNF117	0.119	1.05E-06
ENSG00000117020	AKT3	-0.083	1.06E-06
ENSG00000281969	AL592158.1	0.363	1.06E-06
ENSG00000178199	ZC3H12D	-0.100	1.06E-06
ENSG00000145332	KLHL8	0.071	1.06E-06
ENSG00000138434	ITPRID2	0.073	1.09E-06
ENSG00000143878	RHOB	0.096	1.09E-06
ENSG00000160179	ABCG1	0.143	1.17E-06
ENSG00000122965	RBM19	-0.056	1.21E-06
ENSG00000158517	NCF1	0.108	1.25E-06
ENSG00000076685	NT5C2	0.074	1.25E-06
ENSG00000120594	PLXDC2	0.092	1.25E-06
ENSG00000116120	FARSB	-0.052	1.25E-06
ENSG00000197622	CDC42SE1	0.045	1.25E-06
ENSG00000135363	LMO2	0.082	1.25E-06
ENSG00000172845	SP3	0.050	1.25E-06
ENSG00000213462	ERV3-1	0.096	1.32E-06
ENSG00000111052	LIN7A	0.107	1.33E-06
ENSG00000165030	NFIL3	0.104	1.41E-06
ENSG00000120868	APAF1	0.086	1.45E-06
ENSG00000196405	EVL	-0.064	1.53E-06
ENSG00000125827	TMX4	0.069	1.53E-06

ENSG00000145860	RNF145	0.045	1.55E-06
ENSG00000151694	ADAM17	0.062	1.55E-06
ENSG00000113648	MACROH2A1	0.052	1.55E-06
ENSG00000131724	IL13RA1	0.108	1.67E-06
ENSG00000176597	B3GNT5	0.115	1.74E-06
ENSG00000080546	SESN1	-0.080	1.77E-06
ENSG00000241399	CD302	0.081	1.79E-06
ENSG00000228242	XPC-AS1	0.119	1.79E-06
ENSG00000165879	FRAT1	0.092	1.79E-06
ENSG00000175538	KCNE3	0.084	1.79E-06
ENSG00000255112	CHMP1B	0.062	1.79E-06
ENSG00000136869	TLR4	0.100	1.81E-06
ENSG00000118564	FBXL5	0.086	1.81E-06
ENSG00000146122	DAAM2	0.346	1.82E-06
ENSG00000221869	CEBPD	0.114	1.82E-06
ENSG00000082512	TRAF5	-0.072	1.89E-06
ENSG00000159128	IFNGR2	0.080	1.92E-06
ENSG00000180316	PNPLA1	0.131	2.11E-06
ENSG00000136404	TM6SF1	0.088	2.26E-06
ENSG00000177125	ZBTB34	0.071	2.30E-06
ENSG00000116406	EDEM3	0.047	2.32E-06
ENSG00000112531	QKI	0.067	2.34E-06
ENSG00000186205	MTARC1	0.137	2.37E-06
ENSG00000135766	EGLN1	0.091	2.43E-06
ENSG00000163393	SLC22A15	0.101	2.54E-06
ENSG00000205423	CNEP1R1	0.068	2.54E-06
ENSG00000211455	STK38L	0.060	2.54E-06
ENSG00000118922	KLF12	-0.070	2.57E-06
ENSG00000146859	TMEM140	0.093	2.62E-06
ENSG00000263961	RHEX	0.282	2.67E-06
ENSG00000101846	STS	0.073	2.67E-06
ENSG00000169299	PGM2	0.063	2.67E-06
ENSG00000177674	AGTRAP	0.074	2.70E-06
ENSG00000170837	GPR27	0.119	2.73E-06
ENSG00000111371	SLC38A1	-0.058	2.73E-06
ENSG00000137449	CPEB2	0.085	2.86E-06
ENSG00000171988	JMJD1C	0.064	2.87E-06
ENSG00000162630	B3GALT2	-0.189	2.87E-06
ENSG00000140287	HDC	0.304	3.15E-06
ENSG00000064763	FAR2	0.105	3.20E-06
ENSG00000183255	PTTG1IP	0.053	3.21E-06
ENSG00000085563	ABCB1	-0.123	3.21E-06
ENSG00000213626	LBH	-0.075	3.21E-06
ENSG00000139946	PELI2	0.085	3.23E-06
ENSG00000162704	ARPC5	0.070	3.23E-06
ENSG00000102218	RP2	0.074	3.25E-06
ENSG00000011600	TYROBP	0.085	3.30E-06

ENSG00000143119	CD53	0.042	3.30E-06
ENSG00000158615	PPP1R15B	0.035	3.39E-06
ENSG00000168615	ADAM9	0.072	3.51E-06
ENSG00000113269	RNF130	0.071	3.56E-06
ENSG00000135148	TRAFD1	0.066	3.65E-06
ENSG00000059728	MXD1	0.103	3.70E-06
ENSG00000130956	HABP4	-0.082	3.70E-06
ENSG00000096968	JAK2	0.067	3.72E-06
ENSG00000115145	STAM2	0.047	3.88E-06
ENSG00000132825	PPP1R3D	0.065	3.88E-06
ENSG00000005893	LAMP2	0.083	3.88E-06
ENSG00000163751	CPA3	0.264	4.00E-06
ENSG00000138069	RAB1A	0.052	4.02E-06
ENSG00000059377	TBXAS1	0.083	4.04E-06
ENSG00000073849	ST6GAL1	-0.070	4.26E-06
ENSG00000104974	LILRA1	0.087	4.26E-06
ENSG00000008294	SPAG9	0.067	4.26E-06
ENSG00000117335	CD46	0.063	4.26E-06
ENSG00000135679	MDM2	0.074	4.26E-06
ENSG00000172243	CLEC7A	0.084	4.26E-06
ENSG00000176853	FAM91A1	0.045	4.26E-06
ENSG00000091317	CMTM6	0.073	4.26E-06
ENSG00000117151	CTBS	0.077	4.26E-06
ENSG00000164463	CREBRF	0.054	4.26E-06
ENSG00000236345	SCAT8	0.125	4.26E-06
ENSG00000136156	ITM2B	0.079	4.27E-06
ENSG00000159882	ZNF230	0.073	4.27E-06
ENSG00000255733	IFNG-AS1	-0.131	4.27E-06
ENSG00000180096	SEPTIN1	-0.071	4.27E-06
ENSG00000162894	FCMR	-0.089	4.44E-06
ENSG00000114374	USP9Y	-0.071	4.44E-06
ENSG00000174197	MGA	-0.045	4.48E-06
ENSG00000140044	JDP2	0.098	4.54E-06
ENSG00000116701	NCF2	0.084	4.58E-06
ENSG00000112159	MDN1	-0.069	4.68E-06
ENSG00000114331	ACAP2	0.057	4.94E-06
ENSG00000188641	DPYD	0.056	4.94E-06
ENSG00000135404	CD63	0.069	5.02E-06
ENSG00000110931	CAMKK2	0.077	5.05E-06
ENSG00000122224	LY9	-0.070	5.05E-06
ENSG00000265590	CFAP298-TCP10L	-0.120	5.39E-06
ENSG00000156642	NPTN	0.056	5.52E-06
ENSG00000112486	CCR6	-0.144	5.66E-06
ENSG00000188895	MSL1	0.075	5.66E-06
ENSG00000175471	MCTP1	0.084	5.68E-06
ENSG00000135655	USP15	0.075	5.74E-06
ENSG00000169826	CSGALNACT2	0.050	5.78E-06

ENSG00000145375	SPATA5	-0.061	5.81E-06
ENSG00000139266	MARCHF9	-0.075	5.85E-06
ENSG00000160208	RRP1B	-0.056	5.92E-06
ENSG00000107566	ERLIN1	0.070	6.02E-06
ENSG00000164327	RICTOR	0.060	6.20E-06
ENSG00000081320	STK17B	0.053	6.20E-06
ENSG00000198961	PJA2	0.051	6.20E-06
ENSG00000082996	RNF13	0.063	6.38E-06
ENSG00000107829	FBXW4	-0.063	6.45E-06
ENSG00000007944	MYLIP	0.065	6.61E-06
ENSG00000215114	UBXN2B	0.078	6.61E-06
ENSG00000138764	CCNG2	0.065	6.61E-06
ENSG00000101596	SMCHD1	0.077	6.61E-06
ENSG00000118402	ELOVL4	-0.180	6.61E-06
ENSG00000166130	IKBIP	0.093	6.74E-06
ENSG00000153283	CD96	-0.070	6.74E-06
ENSG00000275888	AC132872.3	0.168	6.74E-06
ENSG00000196305	IARS1	-0.061	6.74E-06
ENSG00000113163	CERT1	0.041	6.82E-06
ENSG00000083937	CHMP2B	0.048	6.82E-06
ENSG00000135378	PRRG4	0.132	6.82E-06
ENSG00000137575	SDCBP	0.088	7.01E-06
ENSG00000116473	RAP1A	0.053	7.01E-06
ENSG00000131236	CAP1	0.057	7.08E-06
ENSG00000197872	CYRIA	0.066	7.09E-06
ENSG00000196329	GIMAP5	-0.069	7.40E-06
ENSG00000138061	CYP1B1	0.122	7.40E-06
ENSG00000088387	DOCK9	-0.092	7.40E-06
ENSG00000130787	HIP1R	-0.097	7.49E-06
ENSG00000084070	SMAP2	0.099	7.50E-06
ENSG00000139318	DUSP6	0.077	7.50E-06
ENSG00000151883	PARP8	0.050	7.61E-06
ENSG00000106780	MEGF9	0.099	7.63E-06
ENSG00000197635	DPP4	-0.091	7.63E-06
ENSG00000166405	RIC3	-0.105	7.69E-06
ENSG00000186908	ZDHC17	0.050	7.75E-06
ENSG00000164691	TAGAP	0.053	7.86E-06
ENSG00000239998	LILRA2	0.092	7.89E-06
ENSG00000255310	AF131215.5	-0.084	7.90E-06
ENSG00000135127	BICDL1	-0.112	7.90E-06
ENSG00000164754	RAD21	0.039	8.14E-06
ENSG00000188690	UROS	-0.055	8.20E-06
ENSG00000166900	STX3	0.090	8.35E-06
ENSG00000066027	PPP2R5A	0.066	8.35E-06
ENSG00000168461	RAB31	0.087	8.35E-06
ENSG00000003402	CFLAR	0.068	8.39E-06
ENSG00000109220	CHIC2	0.053	8.40E-06

ENSG00000172795	DCP2	0.055	8.66E-06
ENSG00000164823	OSGIN2	0.086	8.71E-06
ENSG00000112365	ZBTB24	-0.040	8.71E-06
ENSG00000271856	LINC01215	-0.081	8.75E-06
ENSG00000112697	TMEM30A	0.056	8.88E-06
ENSG00000002919	SNX11	0.071	9.24E-06
ENSG00000131378	RFTN1	-0.055	9.24E-06
ENSG00000167984	NLRC3	-0.060	9.44E-06
ENSG00000039319	ZFYVE16	0.069	9.44E-06
ENSG00000147416	ATP6V1B2	0.074	9.69E-06
ENSG00000162413	KLHL21	0.075	9.95E-06
ENSG00000174125	TLR1	0.082	1.02E-05
ENSG00000086300	SNX10	0.078	1.02E-05
ENSG00000114450	GNB4	0.070	1.04E-05
ENSG00000167193	CRK	0.047	1.05E-05
ENSG00000103196	CRISPLD2	0.133	1.06E-05
ENSG00000137177	KIF13A	0.095	1.12E-05
ENSG00000132286	TIMM10B	-0.060	1.12E-05
ENSG00000151893	CACUL1	0.063	1.13E-05
ENSG00000188906	LRRK2	0.093	1.14E-05
ENSG00000135503	ACVR1B	0.073	1.17E-05
ENSG00000181274	FRAT2	0.090	1.17E-05
ENSG00000120063	GNA13	0.045	1.17E-05
ENSG00000198585	NUDT16	0.062	1.17E-05
ENSG00000138185	ENTPD1	0.081	1.18E-05
ENSG00000109466	KLHL2	0.086	1.19E-05
ENSG00000286285	AL138778.1	-0.127	1.19E-05
ENSG00000160818	GPATCH4	-0.075	1.19E-05
ENSG00000170006	TMEM154	0.083	1.19E-05
ENSG00000100503	NIN	0.047	1.19E-05
ENSG00000213085	CFAP45	0.144	1.20E-05
ENSG00000181754	AMIGO1	-0.090	1.23E-05
ENSG00000116455	WDR77	-0.054	1.26E-05
ENSG00000141480	ARRB2	0.066	1.32E-05
ENSG00000104870	FCGRT	0.076	1.32E-05
ENSG00000198833	UBE2J1	0.070	1.34E-05
ENSG00000214787	MS4A4E	0.098	1.34E-05
ENSG00000142867	BCL10	0.043	1.34E-05
ENSG00000084110	HAL	0.109	1.34E-05
ENSG00000175048	ZDHHC14	-0.138	1.34E-05
ENSG00000129351	ILF3	-0.038	1.34E-05
ENSG00000135905	DOCK10	-0.056	1.34E-05
ENSG00000179088	C12orf42	-0.125	1.34E-05
ENSG00000276644	DACH1	0.115	1.34E-05
ENSG00000170365	SMAD1	0.142	1.34E-05
ENSG00000143418	CERS2	0.046	1.34E-05
ENSG00000065135	GNAI3	0.043	1.34E-05

ENSG00000114978	MOB1A	0.041	1.34E-05
ENSG00000163563	MNDA	0.092	1.35E-05
ENSG00000168234	TTC39C	-0.069	1.35E-05
ENSG00000128383	APOBEC3A	0.104	1.35E-05
ENSG00000163848	ZNF148	0.037	1.38E-05
ENSG00000160856	FCRL3	-0.120	1.38E-05
ENSG00000118308	IRAG2	0.059	1.38E-05
ENSG00000049245	VAMP3	0.052	1.43E-05
ENSG00000138411	HECW2	0.130	1.43E-05
ENSG00000100697	DICER1	0.060	1.43E-05
ENSG00000136026	CKAP4	0.088	1.43E-05
ENSG00000149534	MS4A2	0.277	1.43E-05
ENSG00000171453	POLR1C	-0.063	1.44E-05
ENSG00000109046	WSB1	0.052	1.46E-05
ENSG00000125459	MSTO1	-0.070	1.46E-05
ENSG00000170871	KIAA0232	0.067	1.50E-05
ENSG00000213903	LTB4R	0.094	1.53E-05
ENSG00000059573	ALDH18A1	-0.074	1.53E-05
ENSG00000257878	AC007298.2	0.137	1.53E-05
ENSG00000198286	CARD11	-0.077	1.54E-05
ENSG00000168795	ZBTB5	-0.049	1.56E-05
ENSG00000104093	DMXL2	0.084	1.57E-05
ENSG00000134152	KATNBL1	0.078	1.57E-05
ENSG00000184675	AMER1	-0.056	1.59E-05
ENSG00000256751	PLBD1-AS1	0.116	1.59E-05
ENSG00000100485	SOS2	0.070	1.61E-05
ENSG00000108433	GOSR2	-0.037	1.61E-05
ENSG00000173930	SLCO4C1	0.084	1.61E-05
ENSG00000111261	MANSC1	0.130	1.62E-05
ENSG00000197601	FAR1	0.053	1.63E-05
ENSG00000083223	TUT7	0.066	1.67E-05
ENSG00000105856	HBP1	0.051	1.67E-05
ENSG00000112685	EXOC2	-0.047	1.68E-05
ENSG00000188107	EYS	0.200	1.68E-05
ENSG00000130449	ZSWIM6	0.052	1.68E-05
ENSG00000198589	LRBA	-0.049	1.70E-05
ENSG00000130348	QRSL1	-0.062	1.71E-05
ENSG00000156671	SAMD8	0.050	1.71E-05
ENSG00000178226	PRSS36	0.194	1.71E-05
ENSG00000143669	LYST	0.068	1.71E-05
ENSG00000112062	MAPK14	0.076	1.71E-05
ENSG00000169967	MAP3K2	0.060	1.72E-05
ENSG00000107742	SPOCK2	-0.076	1.73E-05
ENSG00000107679	PLEKHA1	-0.065	1.73E-05
ENSG00000120690	ELF1	0.037	1.73E-05
ENSG00000133318	RTN3	0.080	1.75E-05
ENSG00000169031	COL4A3	-0.235	1.75E-05

ENSG00000136868	SLC31A1	0.071	1.75E-05
ENSG00000101445	PPP1R16B	-0.062	1.75E-05
ENSG00000101150	TPD52L2	0.061	1.81E-05
ENSG00000165929	TC2N	-0.074	1.83E-05
ENSG00000181381	DDX60L	0.103	1.83E-05
ENSG00000151151	IPMK	0.078	1.83E-05
ENSG00000101084	RAB5IF	0.062	1.87E-05
ENSG00000267519	MIR23AHG	0.086	1.92E-05
ENSG00000105855	ITGB8	0.249	1.98E-05
ENSG00000065526	SPEN	0.047	1.99E-05
ENSG00000069667	RORA	-0.071	1.99E-05
ENSG00000124181	PLCG1	-0.079	2.03E-05
ENSG00000135828	RNASEL	0.050	2.03E-05
ENSG00000255801	AC092746.1	0.170	2.04E-05
ENSG00000048740	CELF2	0.048	2.04E-05
ENSG00000111058	ACSS3	0.112	2.10E-05
ENSG00000185101	ANO9	-0.098	2.10E-05
ENSG00000113161	HMGCR	0.062	2.10E-05
ENSG00000076513	ANKRD13A	0.056	2.10E-05
ENSG00000286488	AC103858.3	0.076	2.14E-05
ENSG00000172594	SMPDL3A	0.106	2.14E-05
ENSG00000087269	NOP14	-0.046	2.14E-05
ENSG00000173744	AGFG1	0.054	2.15E-05
ENSG00000106070	GRB10	0.151	2.19E-05
ENSG00000144645	OSBPL10	-0.170	2.19E-05
ENSG00000276136	AC016957.2	0.069	2.19E-05
ENSG00000142405	NLRP12	0.085	2.23E-05
ENSG00000217275	AL031777.1	0.188	2.27E-05
ENSG00000198223	CSF2RA	0.084	2.27E-05
ENSG00000108256	NUFIP2	0.034	2.45E-05
ENSG0000010671	BTK	0.051	2.45E-05
ENSG00000117834	SLC5A9	0.182	2.48E-05
ENSG00000116984	MTR	-0.046	2.51E-05
ENSG00000156052	GNAQ	0.069	2.51E-05
ENSG00000166707	ZCCHC18	-0.151	2.51E-05
ENSG00000127152	BCL11B	-0.065	2.51E-05
ENSG00000168280	KIF5C	-0.098	2.51E-05
ENSG00000170345	FOS	0.101	2.51E-05
ENSG00000124177	CHD6	-0.053	2.51E-05
ENSG00000087253	LPCAT2	0.085	2.53E-05
ENSG00000009790	TRAF3IP3	-0.040	2.55E-05
ENSG00000120696	KBTBD7	0.075	2.63E-05
ENSG00000111647	UHRF1BP1L	0.060	2.64E-05
ENSG00000065615	CYB5R4	0.066	2.64E-05
ENSG00000170989	S1PR1	-0.065	2.64E-05
ENSG00000111796	KLRB1	-0.126	2.64E-05
ENSG00000109586	GALNT7	0.052	2.66E-05

ENSG00000113719	ERGIC1	0.077	2.66E-05
ENSG00000163602	RYBP	0.067	2.66E-05
ENSG00000136536	MARCHF7	0.054	2.68E-05
ENSG00000258819	LINC02289	0.159	2.73E-05
ENSG00000136573	BLK	-0.132	2.80E-05
ENSG00000116106	EPHA4	-0.110	2.81E-05
ENSG00000134463	ECHDC3	0.146	2.81E-05
ENSG00000119314	PTBP3	0.054	2.83E-05
ENSG00000173171	MTX1	0.069	2.89E-05
ENSG00000136630	HLX	0.108	2.89E-05
ENSG00000124608	AARS2	-0.053	2.96E-05
ENSG00000087338	GMCL1	0.052	2.96E-05
ENSG00000225342	LRRK2-DT	0.088	2.98E-05
ENSG00000136689	IL1RN	0.098	2.98E-05
ENSG00000182923	CEP63	0.071	3.05E-05
ENSG00000049089	COL9A2	0.131	3.09E-05
ENSG00000257093	DENND11	-0.049	3.12E-05
ENSG00000067900	ROCK1	0.046	3.15E-05
ENSG00000080608	PUM3	-0.072	3.21E-05
ENSG00000025039	RRAGD	0.092	3.22E-05
ENSG00000081059	TCF7	-0.097	3.23E-05
ENSG00000084073	ZMPSTE24	0.047	3.26E-05
ENSG00000145491	ROPN1L	0.109	3.27E-05
ENSG00000164713	BRI3	0.067	3.27E-05
ENSG00000115652	UXS1	-0.053	3.36E-05
ENSG00000145041	DCAF1	-0.042	3.37E-05
ENSG00000091490	SEL1L3	-0.074	3.38E-05
ENSG00000166912	MTMR10	0.058	3.38E-05
ENSG00000160683	CXCR5	-0.121	3.42E-05
ENSG00000086730	LAT2	0.069	3.46E-05
ENSG00000090376	IRAK3	0.098	3.47E-05
ENSG00000165029	ABCA1	0.132	3.47E-05
ENSG00000170876	TMEM43	0.053	3.47E-05
ENSG00000143207	COP1	0.058	3.52E-05
ENSG00000079950	STX7	0.047	3.53E-05
ENSG00000101916	TLR8	0.081	3.53E-05
ENSG00000122694	GLIPR2	0.064	3.57E-05
ENSG00000189180	ZNF33A	0.045	3.62E-05
ENSG00000175265	GOLGA8A	-0.089	3.67E-05
ENSG00000163412	EIF4E3	0.065	3.70E-05
ENSG00000103365	GGA2	-0.053	3.70E-05
ENSG00000137767	SQOR	0.061	3.82E-05
ENSG00000163191	S100A11	0.093	3.86E-05
ENSG00000067560	RHOA	0.051	3.91E-05
ENSG00000027001	MIPEP	-0.067	3.91E-05
ENSG00000109452	INPP4B	-0.080	3.91E-05
ENSG00000271327	AC010201.2	0.092	3.91E-05

ENSG00000170802	FOXN2	0.038	3.92E-05
ENSG00000185760	KCNQ5	-0.149	3.97E-05
ENSG00000172340	SUCLG2	-0.045	3.97E-05
ENSG00000116266	STXBP3	0.050	3.97E-05
ENSG00000168421	RHOH	-0.062	3.97E-05
ENSG00000181751	MACIR	0.071	3.97E-05
ENSG00000069974	RAB27A	0.054	3.97E-05
ENSG00000130066	SAT1	0.068	3.97E-05
ENSG00000153250	RBMS1	0.036	4.00E-05
ENSG00000135932	CAB39	0.045	4.02E-05
ENSG00000151702	FLI1	0.037	4.03E-05
ENSG00000151623	NR3C2	-0.086	4.07E-05
ENSG00000154016	GRAP	-0.080	4.10E-05
ENSG00000213930	GALT	-0.054	4.10E-05
ENSG00000109743	BST1	0.082	4.13E-05
ENSG00000071626	DAZAP1	-0.045	4.16E-05
ENSG00000119471	HSDL2	0.074	4.17E-05
ENSG00000100906	NFKBIA	0.059	4.20E-05
ENSG00000166261	ZNF202	-0.062	4.25E-05
ENSG00000284882	AL359762.1	0.106	4.25E-05
ENSG00000248049	UBA6-AS1	-0.060	4.26E-05
ENSG00000131069	ACSS2	0.064	4.26E-05
ENSG00000104731	KLHDC4	-0.080	4.28E-05
ENSG00000114107	CEP70	-0.109	4.28E-05
ENSG00000182022	CHST15	0.085	4.28E-05
ENSG00000012779	ALOX5	0.079	4.31E-05
ENSG00000272562	H3-3A-DT	0.108	4.40E-05
ENSG00000148411	NACC2	0.064	4.41E-05
ENSG00000152213	ARL11	0.085	4.42E-05
ENSG00000170909	OSCAR	0.083	4.50E-05
ENSG00000163131	CTSS	0.067	4.55E-05
ENSG00000234745	HLA-B	0.059	4.62E-05
ENSG00000262370	AC108134.3	0.099	4.62E-05
ENSG00000137509	PRCP	0.053	4.62E-05
ENSG00000033800	PIAS1	0.044	4.62E-05
ENSG00000198604	BAZ1A	0.057	4.62E-05
ENSG00000153064	BANK1	-0.117	4.63E-05
ENSG00000253210	AC040970.1	0.095	4.67E-05
ENSG00000106351	AGFG2	-0.085	4.76E-05
ENSG00000108582	CPD	0.086	4.79E-05
ENSG00000167261	DPEP2	0.076	4.79E-05
ENSG00000158156	XKR8	0.076	4.79E-05
ENSG00000265972	TXNIP	0.052	4.82E-05
ENSG00000198932	GPRASP1	-0.081	4.84E-05
ENSG00000198189	HSD17B11	0.065	4.98E-05
ENSG00000146247	PHIP	0.033	5.03E-05
ENSG00000132965	ALOX5AP	0.094	5.04E-05

ENSG00000169508	GPR183	-0.087	5.04E-05
ENSG00000281162	LINC01127	0.142	5.04E-05
ENSG00000057704	TMCC3	0.090	5.13E-05
ENSG00000262655	SPON1	-0.169	5.13E-05
ENSG00000088833	NSFL1C	0.065	5.18E-05
ENSG00000275395	FCGBP	-0.157	5.21E-05
ENSG00000111785	RIC8B	-0.058	5.21E-05
ENSG00000141293	SKAP1	-0.074	5.25E-05
ENSG00000160883	HK3	0.081	5.29E-05
ENSG00000116044	NFE2L2	0.039	5.31E-05
ENSG00000066084	DIP2B	0.058	5.34E-05
ENSG00000064012	CASP8	0.042	5.48E-05
ENSG00000129292	PHF20L1	0.049	5.54E-05
ENSG00000214812	AL137792.1	0.142	5.61E-05
ENSG00000104388	RAB2A	0.043	5.64E-05
ENSG00000217128	FNIP1	0.061	5.65E-05
ENSG00000117410	ATP6V0B	0.068	5.65E-05
ENSG00000126883	NUP214	0.072	5.68E-05
ENSG00000071575	TRIB2	-0.069	5.80E-05
ENSG00000092531	SNAP23	0.050	5.84E-05
ENSG00000162702	ZNF281	0.060	5.90E-05
ENSG00000165115	KIF27	0.092	5.90E-05
ENSG00000109756	RAPGEF2	0.068	5.90E-05
ENSG00000035664	DAPK2	0.097	5.94E-05
ENSG00000182487	NCF1B	0.092	6.00E-05
ENSG00000160185	UBASH3A	-0.076	6.00E-05
ENSG00000287554	AC006364.1	-0.210	6.00E-05
ENSG00000265808	SEC22B	0.032	6.02E-05
ENSG00000163513	TGFBR2	0.041	6.07E-05
ENSG00000165178	NCF1C	0.100	6.13E-05
ENSG00000189091	SF3B3	-0.044	6.14E-05
ENSG00000132357	CARD6	0.066	6.15E-05
ENSG00000152463	OLAH	0.289	6.20E-05
ENSG00000163788	SNRK	0.044	6.27E-05
ENSG00000006530	AGK	-0.053	6.27E-05
ENSG00000204592	HLA-E	0.054	6.27E-05
ENSG00000175073	VCPIP1	0.039	6.29E-05
ENSG00000117000	RLF	0.047	6.37E-05
ENSG00000185163	DDX51	-0.080	6.45E-05
ENSG00000136451	VEZF1	0.031	6.45E-05
ENSG00000140299	BNIP2	0.040	6.48E-05
ENSG00000139132	FGD4	0.076	6.52E-05
ENSG00000189134	NKAPL	0.132	6.53E-05
ENSG00000134698	AGO4	0.074	6.53E-05
ENSG00000134996	OSTF1	0.052	6.63E-05
ENSG00000139278	GLIPR1	0.051	6.65E-05
ENSG00000129103	SUMF2	-0.046	6.72E-05

ENSG00000176390	CRLF3	0.039	6.79E-05
ENSG00000148843	PDCD11	-0.058	6.87E-05
ENSG00000247287	AL359220.1	-0.081	6.87E-05
ENSG00000177575	CD163	0.100	6.90E-05
ENSG00000172575	RASGRP1	-0.058	6.90E-05
ENSG00000103994	ZNF106	0.053	6.90E-05
ENSG00000115828	QPCT	0.103	6.90E-05
ENSG00000108424	KPNB1	0.055	6.90E-05
ENSG00000215788	TNFRSF25	-0.091	6.90E-05
ENSG00000085511	MAP3K4	-0.068	6.97E-05
ENSG00000179820	MYADM	0.103	6.98E-05
ENSG00000115590	IL1R2	0.122	6.99E-05
ENSG00000156521	TYSND1	-0.048	7.00E-05
ENSG00000152242	C18orf25	0.034	7.07E-05
ENSG00000161298	ZNF382	-0.086	7.07E-05
ENSG00000168685	IL7R	-0.071	7.07E-05
ENSG00000105352	CEACAM4	0.108	7.15E-05
ENSG00000138433	CIR1	0.056	7.18E-05
ENSG00000163162	RNF149	0.067	7.18E-05
ENSG00000145996	CDKAL1	-0.041	7.22E-05
ENSG00000032219	ARID4A	0.045	7.26E-05
ENSG00000178562	CD28	-0.083	7.26E-05
ENSG00000163297	ANTXR2	0.054	7.26E-05
ENSG00000165071	TMEM71	0.059	7.30E-05
ENSG00000197442	MAP3K5	0.049	7.32E-05
ENSG00000136051	WASHC4	0.045	7.32E-05
ENSG00000050130	JKAMP	0.043	7.46E-05
ENSG00000102554	KLF5	0.104	7.57E-05
ENSG00000027697	IFNGR1	0.069	7.59E-05
ENSG00000249115	HAUS5	-0.098	7.62E-05
ENSG00000109381	ELF2	0.043	7.64E-05
ENSG00000157168	NRG1	0.190	7.67E-05
ENSG00000188404	SELL	0.072	7.68E-05
ENSG00000006652	IFRD1	0.071	7.78E-05
ENSG00000179348	GATA2	0.227	7.82E-05
ENSG00000069493	CLEC2D	-0.055	7.85E-05
ENSG00000089154	GCN1	-0.070	7.86E-05
ENSG00000165392	WRN	-0.069	7.87E-05
ENSG00000181191	PJA1	-0.070	8.03E-05
ENSG00000126858	RHOT1	0.045	8.03E-05
ENSG00000156273	BACH1	0.063	8.13E-05
ENSG00000053372	MRTO4	-0.070	8.24E-05
ENSG00000171700	RGS19	0.056	8.24E-05
ENSG00000101290	CDS2	0.054	8.24E-05
ENSG00000213341	CHUK	0.045	8.25E-05
ENSG00000058272	PPP1R12A	0.042	8.32E-05
ENSG00000171940	ZNF217	0.043	8.38E-05

ENSG00000131634	TMEM204	-0.092	8.44E-05
ENSG00000196352	CD55	0.078	8.57E-05
ENSG00000135604	STX11	0.075	8.62E-05
ENSG00000198431	TXNRD1	0.052	8.62E-05
ENSG00000205269	TMEM170B	0.068	8.62E-05
ENSG00000089094	KDM2B	-0.067	8.62E-05
ENSG00000156026	MCU	0.057	8.62E-05
ENSG00000214279	SCART1	-0.126	8.62E-05
ENSG00000110031	LPXN	-0.035	8.62E-05
ENSG00000100991	TRPC4AP	0.033	8.66E-05
ENSG00000184220	CMSS1	-0.093	8.71E-05
ENSG00000261716	H2BC20P	0.057	8.71E-05
ENSG00000231607	DLEU2	0.058	8.71E-05
ENSG00000078618	NRDC	0.048	8.72E-05
ENSG00000124831	LRRFIP1	0.046	8.72E-05
ENSG00000143337	TOR1AIP1	0.042	8.72E-05
ENSG00000133703	KRAS	0.041	8.73E-05
ENSG00000140995	DEF8	0.067	8.75E-05
ENSG00000033327	GAB2	0.089	8.76E-05
ENSG00000138678	GPAT3	0.091	8.76E-05
ENSG00000155465	SLC7A7	0.063	8.77E-05
ENSG00000198736	MSRB1	0.087	8.78E-05
ENSG00000196562	SULF2	0.080	8.85E-05
ENSG00000241878	PISD	0.082	8.91E-05
ENSG00000197403	OR6N1	0.317	8.99E-05
ENSG00000196083	IL1RAP	0.092	9.00E-05
ENSG00000248323	LUCAT1	0.091	9.00E-05
ENSG00000145780	FEM1C	0.041	9.19E-05
ENSG00000127603	MACF1	-0.042	9.24E-05
ENSG00000006459	KDM7A	0.048	9.24E-05
ENSG00000243646	IL10RB	0.057	9.31E-05
ENSG00000188315	C3orf62	0.085	9.38E-05
ENSG00000147251	DOCK11	0.034	9.43E-05
ENSG00000197771	MCMBP	0.040	9.50E-05
ENSG00000136167	LCP1	0.053	9.50E-05
ENSG00000258227	CLEC5A	0.139	9.52E-05
ENSG00000096384	HSP90AB1	-0.050	9.52E-05
ENSG00000130589	HELZ2	0.097	9.58E-05
ENSG00000083720	OXCT1	-0.065	9.62E-05
ENSG00000178802	MPI	-0.055	9.71E-05
ENSG00000134294	SLC38A2	0.043	9.71E-05
ENSG00000149516	MS4A3	0.191	9.71E-05
ENSG00000137078	SIT1	-0.070	9.71E-05
ENSG00000204397	CARD16	0.075	9.78E-05
ENSG00000121316	PLBD1	0.084	9.79E-05
ENSG00000160193	WDR4	-0.074	9.82E-05
ENSG00000198160	MIER1	0.039	9.86E-05

ENSG00000259768	AC004943.2	-0.098	9.96E-05
ENSG00000163171	CDC42EP3	0.066	1.00E-04
ENSG00000280206	AC026401.3	0.061	1.01E-04
ENSG00000196850	PPTC7	0.048	1.01E-04
ENSG00000121858	TNFSF10	0.074	1.02E-04
ENSG00000162777	DENND2D	-0.043	1.02E-04
ENSG00000135763	URB2	-0.054	1.02E-04
ENSG00000261997	AC007336.1	0.083	1.02E-04
ENSG00000198455	ZXDB	-0.054	1.03E-04
ENSG00000145685	LHFPL2	0.091	1.03E-04
ENSG00000048392	RRM2B	0.060	1.03E-04
ENSG00000139505	MTMR6	0.047	1.03E-04
ENSG00000135372	NAT10	-0.060	1.04E-04
ENSG00000260719	AC009133.3	-0.086	1.04E-04
ENSG00000134014	ELP3	-0.052	1.05E-04
ENSG00000286646	AL121933.2	0.079	1.05E-04
ENSG00000138463	SLC49A4	0.064	1.05E-04
ENSG00000164941	INTS8	0.041	1.07E-04
ENSG00000165175	MID1IP1	0.062	1.08E-04
ENSG00000119922	IFIT2	0.133	1.08E-04
ENSG00000262877	AC110285.2	0.137	1.08E-04
ENSG00000168591	TMUB2	0.045	1.10E-04
ENSG00000130703	OSBPL2	0.058	1.11E-04
ENSG00000169224	GCSAML	0.177	1.11E-04
ENSG00000139370	SLC15A4	0.059	1.11E-04
ENSG00000101265	RASSF2	0.068	1.11E-04
ENSG00000010810	FYN	-0.045	1.12E-04
ENSG00000124784	RIOK1	-0.059	1.12E-04
ENSG00000164144	ARFIP1	0.057	1.12E-04
ENSG00000102245	CD40LG	-0.079	1.12E-04
ENSG00000114480	GBE1	0.052	1.13E-04
ENSG00000117090	SLAMF1	-0.071	1.13E-04
ENSG00000128016	ZFP36	0.063	1.13E-04
ENSG00000135823	STX6	0.038	1.13E-04
ENSG00000198399	ITSN2	0.029	1.14E-04
ENSG00000274963	RN7SL600P	0.084	1.14E-04
ENSG00000114573	ATP6V1A	0.069	1.14E-04
ENSG00000128739	SNRPN	-0.050	1.14E-04
ENSG00000198818	SFT2D1	0.045	1.14E-04
ENSG00000228589	SPCS2P4	0.353	1.17E-04
ENSG00000280088	AC126474.2	0.069	1.17E-04
ENSG00000048828	FAM120A	0.039	1.17E-04
ENSG00000238113	LINC01410	0.097	1.17E-04
ENSG00000115306	SPTBN1	-0.055	1.17E-04
ENSG00000102897	LYRM1	0.048	1.17E-04
ENSG00000169239	CA5B	-0.048	1.18E-04
ENSG00000173258	ZNF483	-0.088	1.18E-04

ENSG0000049860	HEXB	0.047	1.20E-04
ENSG00000166313	APBB1	-0.075	1.20E-04
ENSG00000151413	NUBPL	-0.084	1.20E-04
ENSG00000181666	ZNF875	-0.062	1.20E-04
ENSG00000181778	TMEM252	0.132	1.21E-04
ENSG0000018699	TTC27	-0.069	1.21E-04
ENSG00000102032	RENBP	0.076	1.22E-04
ENSG00000172819	RARG	-0.076	1.22E-04
ENSG00000136560	TANK	0.041	1.22E-04
ENSG00000068383	INPP5A	0.059	1.24E-04
ENSG00000134686	PHC2	0.100	1.24E-04
ENSG00000163931	TKT	0.071	1.24E-04
ENSG00000096433	ITPR3	-0.071	1.24E-04
ENSG00000082212	ME2	0.036	1.24E-04
ENSG00000108474	PIGL	-0.061	1.25E-04
ENSG00000178695	KCTD12	0.060	1.26E-04
ENSG00000168092	PAFAH1B2	0.031	1.28E-04
ENSG00000042088	TDP1	-0.047	1.28E-04
ENSG00000154889	MPPE1	0.057	1.28E-04
ENSG00000107745	MICU1	0.061	1.28E-04
ENSG00000138378	STAT4	-0.060	1.29E-04
ENSG00000081237	PTPRC	0.037	1.30E-04
ENSG00000165733	BMS1	-0.043	1.30E-04
ENSG00000006534	ALDH3B1	0.072	1.31E-04
ENSG00000138459	SLC35A5	0.040	1.33E-04
ENSG00000023445	BIRC3	-0.080	1.34E-04
ENSG00000253352	TUG1	0.026	1.34E-04
ENSG00000115602	IL1RL1	0.165	1.34E-04
ENSG00000117862	TXNDC12	0.048	1.34E-04
ENSG00000022277	RTF2	0.050	1.34E-04
ENSG00000107738	VSIR	0.073	1.34E-04
ENSG00000090554	FLT3LG	-0.081	1.35E-04
ENSG00000118855	MFSD1	0.049	1.35E-04
ENSG00000133706	LARS1	-0.042	1.35E-04
ENSG00000156931	VPS8	0.057	1.35E-04
ENSG00000123636	BAZ2B	0.066	1.37E-04
ENSG00000226791	LINC02611	-0.087	1.37E-04
ENSG00000140350	ANP32A	0.036	1.37E-04
ENSG00000114268	PFKFB4	0.081	1.38E-04
ENSG00000158715	SLC45A3	0.169	1.38E-04
ENSG00000132704	FCRL2	-0.148	1.38E-04
ENSG00000124374	PAIP2B	-0.069	1.42E-04
ENSG00000156875	MFSD14A	0.037	1.43E-04
ENSG00000139626	ITGB7	-0.060	1.43E-04
ENSG00000115165	CYTIP	0.031	1.44E-04
ENSG00000138071	ACTR2	0.041	1.44E-04
ENSG00000277763	AL138995.1	0.109	1.44E-04

ENSG00000012124	CD22	-0.139	1.45E-04
ENSG000000176903	PNMA1	-0.049	1.45E-04
ENSG000000185947	ZNF267	0.057	1.46E-04
ENSG000000163041	H3-3A	0.068	1.46E-04
ENSG000000115085	ZAP70	-0.066	1.47E-04
ENSG000000087074	PPP1R15A	0.063	1.47E-04
ENSG000000104343	UBE2W	0.056	1.48E-04
ENSG000000238160	LINC02863	0.087	1.48E-04
ENSG000000213694	S1PR3	0.094	1.50E-04
ENSG000000172232	AZU1	0.224	1.50E-04
ENSG000000154473	BUB3	-0.038	1.51E-04
ENSG000000166272	WBP1L	0.037	1.52E-04
ENSG000000110876	SELPLG	0.060	1.52E-04
ENSG000000123146	ADGRE5	0.070	1.53E-04
ENSG000000115310	RTN4	0.041	1.53E-04
ENSG000000248774	AC097534.1	0.136	1.53E-04
ENSG000000204455	TRIM51BP	0.281	1.53E-04
ENSG000000182831	C16orf72	0.047	1.54E-04
ENSG000000254477	AP000640.1	0.099	1.54E-04
ENSG000000118260	CREB1	0.043	1.54E-04
ENSG000000173334	TRIB1	0.071	1.55E-04
ENSG000000115687	PASK	-0.098	1.55E-04
ENSG000000170379	TCAF2	-0.063	1.55E-04
ENSG000000103313	MEFV	0.076	1.55E-04
ENSG000000140718	FTO	-0.046	1.55E-04
ENSG000000111348	ARHGDIB	0.046	1.59E-04
ENSG000000121060	TRIM25	0.079	1.59E-04
ENSG000000065357	DGKA	-0.065	1.59E-04
ENSG000000110344	UBE4A	0.024	1.59E-04
ENSG000000002745	WNT16	-0.223	1.60E-04
ENSG000000283839	AC096667.1	0.074	1.61E-04
ENSG000000162819	BROX	0.039	1.62E-04
ENSG000000244617	ASPRV1	0.112	1.64E-04
ENSG000000100034	PPM1F	0.072	1.64E-04
ENSG000000119669	IRF2BPL	0.069	1.64E-04
ENSG000000155657	TTN	-0.104	1.66E-04
ENSG000000125779	PANK2	0.035	1.66E-04
ENSG000000159445	THEM4	-0.081	1.66E-04
ENSG000000134243	SORT1	0.083	1.67E-04
ENSG000000095787	WAC	0.031	1.67E-04
ENSG000000134313	KIDINS220	0.043	1.67E-04
ENSG000000085449	WDFY1	0.048	1.68E-04
ENSG000000064886	CHI3L2	-0.118	1.68E-04
ENSG000000163629	PTPN13	-0.118	1.69E-04
ENSG000000173597	SULT1B1	0.095	1.70E-04
ENSG000000237772	LINC02631	0.091	1.70E-04
ENSG000000106829	TLE4	0.047	1.71E-04

ENSG00000101298	SNPH	-0.082	1.71E-04
ENSG00000187257	RSBN1L	0.038	1.72E-04
ENSG00000175792	RUVBL1	-0.044	1.72E-04
ENSG00000231365	WARS2-AS1	-0.069	1.72E-04
ENSG00000188596	CFAP54	0.125	1.73E-04
ENSG00000115339	GALNT3	0.062	1.75E-04
ENSG00000164023	SGMS2	0.089	1.75E-04
ENSG00000152229	PSTPIP2	0.073	1.76E-04
ENSG00000008130	NADK	0.073	1.76E-04
ENSG00000139187	KLRG1	-0.108	1.77E-04
ENSG00000024048	UBR2	0.054	1.78E-04
ENSG00000066933	MYO9A	-0.058	1.79E-04
ENSG00000277548	AC018926.3	0.092	1.79E-04
ENSG00000128438	TBC1D27P	-0.213	1.79E-04
ENSG00000140749	IGSF6	0.072	1.80E-04
ENSG00000119321	FKBP15	0.046	1.80E-04
ENSG00000100201	DDX17	0.023	1.80E-04
ENSG00000237343	AC246785.3	-0.093	1.80E-04
ENSG00000099282	TSPAN15	-0.158	1.81E-04
ENSG00000142046	TMEM91	0.085	1.84E-04
ENSG00000068697	LAPTM4A	0.041	1.85E-04
ENSG00000171793	CTPS1	-0.049	1.85E-04
ENSG00000205133	TRIQQ	0.068	1.86E-04
ENSG00000080839	RBL1	-0.068	1.86E-04
ENSG00000204386	NEU1	0.049	1.86E-04
ENSG00000134905	CARS2	0.050	1.86E-04
ENSG00000215301	DDX3X	0.038	1.86E-04
ENSG00000112715	VEGFA	0.088	1.87E-04
ENSG00000116741	RGS2	0.086	1.88E-04
ENSG00000113732	ATP6V0E1	0.048	1.90E-04
ENSG00000177917	ARL6IP6	0.051	1.91E-04
ENSG00000132182	NUP210	-0.054	1.91E-04
ENSG00000247774	PCED1B-AS1	-0.064	1.92E-04
ENSG00000170892	TSEN34	0.073	1.92E-04
ENSG00000100106	TRIOBP	0.056	1.93E-04
ENSG00000141682	PMAIP1	0.083	1.93E-04
ENSG00000125485	DDX31	-0.055	1.93E-04
ENSG00000046647	GEMIN8	-0.062	1.96E-04
ENSG00000153207	AHCTF1	0.056	1.96E-04
ENSG00000148572	NRBF2	0.072	1.97E-04
ENSG00000102580	DNAJC3	0.057	1.97E-04
ENSG00000142657	PGD	0.073	1.97E-04
ENSG00000254470	AP5B1	0.078	1.99E-04
ENSG00000163644	PPM1K	-0.052	1.99E-04
ENSG00000126602	TRAP1	-0.062	1.99E-04
ENSG00000229127	KANSL1L-AS1	-0.060	2.04E-04
ENSG00000116017	ARID3A	0.074	2.05E-04

ENSG00000123545	NDUFAF4	-0.111	2.06E-04
ENSG00000158825	CDA	0.109	2.06E-04
ENSG00000155744	FAM126B	0.076	2.09E-04
ENSG00000133874	RNF122	0.067	2.10E-04
ENSG00000261371	PECAM1	0.059	2.11E-04
ENSG00000163681	SLMAP	0.044	2.11E-04
ENSG00000036257	CUL3	0.035	2.11E-04
ENSG00000166669	ATF7IP2	-0.066	2.11E-04
ENSG00000152804	HHEX	0.053	2.11E-04
ENSG00000143409	MINDY1	0.074	2.12E-04
ENSG00000099204	ABLIM1	-0.064	2.12E-04
ENSG00000125304	TM9SF2	0.043	2.12E-04
ENSG00000250608	AC010210.1	0.068	2.13E-04
ENSG00000256812	CAPNS2	0.091	2.13E-04
ENSG00000101109	STK4	0.032	2.13E-04
ENSG00000117868	ESYT2	-0.041	2.13E-04
ENSG00000105501	SIGLEC5	0.130	2.14E-04
ENSG00000152270	PDE3B	0.049	2.15E-04
ENSG00000185728	YTHDF3	0.033	2.15E-04
ENSG00000077514	POLD3	0.051	2.16E-04
ENSG00000107372	ZFAND5	0.040	2.16E-04
ENSG00000116991	SIPA1L2	0.113	2.16E-04
ENSG00000120910	PPP3CC	-0.059	2.16E-04
ENSG00000182183	SHISAL2A	-0.078	2.18E-04
ENSG00000070614	NDST1	0.101	2.19E-04
ENSG00000174171	AC020659.1	-0.159	2.19E-04
ENSG00000175137	SH3BP5L	0.049	2.22E-04
ENSG00000236951	AC007359.1	-0.211	2.22E-04
ENSG00000123836	PFKFB2	0.091	2.23E-04
ENSG00000150048	CLEC1A	0.129	2.23E-04
ENSG00000056558	TRAF1	-0.059	2.23E-04
ENSG00000179988	PSTK	-0.079	2.24E-04
ENSG00000169403	PTAFR	0.076	2.24E-04
ENSG00000119004	CYP20A1	-0.039	2.24E-04
ENSG00000175029	CTBP2	0.060	2.25E-04
ENSG00000103642	LACTB	0.061	2.26E-04
ENSG00000108405	P2RX1	0.091	2.26E-04
ENSG00000129158	SERGEF	-0.053	2.29E-04
ENSG00000102921	N4BP1	0.056	2.32E-04
ENSG00000247708	STX18-AS1	-0.074	2.33E-04
ENSG00000213390	ARHGAP19	0.055	2.35E-04
ENSG00000112242	E2F3	0.063	2.36E-04
ENSG00000155265	GOLGA7B	-0.082	2.36E-04
ENSG00000070731	ST6GALNAC2	0.101	2.36E-04
ENSG00000147124	ZNF41	-0.040	2.36E-04
ENSG00000185905	C16orf54	0.050	2.37E-04
ENSG00000093134	VNN3	0.101	2.40E-04

ENSG00000198909	MAP3K3	0.054	2.40E-04
ENSG00000182389	CACNB4	0.129	2.40E-04
ENSG00000065243	PKN2	0.054	2.40E-04
ENSG00000205531	NAP1L4	-0.042	2.41E-04
ENSG00000280135	AL096816.1	-0.066	2.41E-04
ENSG00000276900	AC023157.2	0.086	2.47E-04
ENSG00000015676	NUDCD3	-0.037	2.48E-04
ENSG00000112763	BTN2A1	0.045	2.49E-04
ENSG00000147526	TACC1	0.045	2.49E-04
ENSG00000185201	IFITM2	0.101	2.49E-04
ENSG00000185909	KLHDC8B	0.113	2.49E-04
ENSG00000165526	RPUSD4	-0.044	2.49E-04
ENSG00000112773	TENT5A	0.051	2.51E-04
ENSG00000154743	TSEN2	-0.051	2.53E-04
ENSG00000111913	RIPOR2	0.054	2.54E-04
ENSG00000136161	RCBTB2	0.051	2.55E-04
ENSG00000104964	TLE5	-0.046	2.55E-04
ENSG00000163235	TGFA	0.090	2.56E-04
ENSG00000155016	CYP2U1	-0.060	2.56E-04
ENSG00000010539	ZNF200	0.045	2.57E-04
ENSG00000163466	ARPC2	0.036	2.58E-04
ENSG00000135049	AGTPBP1	0.049	2.59E-04
ENSG00000213463	SYNJ2BP	-0.060	2.60E-04
ENSG00000147138	GPR174	-0.061	2.60E-04
ENSG00000188994	ZNF292	0.031	2.63E-04
ENSG00000156675	RAB11FIP1	0.069	2.64E-04
ENSG00000149474	KAT14	-0.044	2.65E-04
ENSG00000245937	LINC01184	-0.055	2.65E-04
ENSG00000169228	RAB24	0.059	2.66E-04
ENSG00000111911	HINT3	0.043	2.66E-04
ENSG00000099940	SNAP29	0.042	2.66E-04
ENSG00000169896	ITGAM	0.070	2.67E-04
ENSG00000174099	MSRB3	0.114	2.67E-04
ENSG00000058673	ZC3H11A	0.035	2.67E-04
ENSG00000009954	BAZ1B	-0.035	2.67E-04
ENSG00000110944	IL23A	-0.103	2.67E-04
ENSG00000271361	HTATSF1P2	0.139	2.67E-04
ENSG00000167207	NOD2	0.089	2.67E-04
ENSG00000143622	RIT1	0.051	2.67E-04
ENSG00000184014	DENND5A	0.063	2.68E-04
ENSG00000108788	MLX	0.034	2.75E-04
ENSG00000012660	ELOVL5	0.043	2.75E-04
ENSG00000077721	UBE2A	0.034	2.75E-04
ENSG00000114738	MAPKAPK3	0.043	2.75E-04
ENSG00000174611	KY	0.127	2.77E-04
ENSG00000123609	NMI	0.063	2.78E-04
ENSG00000233387	IATPR	-0.121	2.78E-04

ENSG00000065150	IPO5	-0.043	2.78E-04
ENSG00000144290	SLC4A10	-0.205	2.79E-04
ENSG00000214212	C19orf38	0.063	2.83E-04
ENSG00000067208	EVI5	0.069	2.83E-04
ENSG00000120262	CCDC170	0.129	2.83E-04
ENSG00000162408	NOL9	-0.057	2.84E-04
ENSG00000235750	KIAA0040	0.051	2.84E-04
ENSG00000024862	CCDC28A	0.043	2.84E-04
ENSG00000172765	TMCC1	0.063	2.84E-04
ENSG00000101972	STAG2	0.042	2.84E-04
ENSG00000280407	AC132872.4	0.120	2.85E-04
ENSG00000097033	SH3GLB1	0.056	2.85E-04
ENSG00000277161	PIGW	-0.076	2.87E-04
ENSG00000003756	RBM5	0.025	2.87E-04
ENSG00000110422	HIPK3	0.049	2.87E-04
ENSG00000111321	LTBR	0.071	2.87E-04
ENSG00000132475	H3-3B	0.064	2.92E-04
ENSG00000108592	FTSJ3	-0.044	2.94E-04
ENSG00000134982	APC	0.041	2.94E-04
ENSG00000132109	TRIM21	0.058	2.95E-04
ENSG00000067182	TNFRSF1A	0.070	2.97E-04
ENSG00000215769	ARHGAP27P1-BPTFP1	0.056	2.97E-04
ENSG00000144118	RALB	0.071	2.98E-04
ENSG00000152219	ARL14EP	-0.071	2.99E-04
ENSG00000107290	SETX	0.035	3.00E-04
ENSG00000116903	EXOC8	0.035	3.04E-04
ENSG00000169891	REPS2	0.105	3.06E-04
ENSG00000026025	VIM	0.049	3.06E-04
ENSG00000225032	AL162586.1	-0.112	3.09E-04
ENSG00000172216	CEBPB	0.068	3.12E-04
ENSG00000224152	AC009506.1	0.097	3.13E-04
ENSG00000179456	ZBTB18	0.043	3.13E-04
ENSG00000180353	HCLS1	0.043	3.13E-04
ENSG00000146676	PURB	0.034	3.13E-04
ENSG00000138029	HADHB	0.029	3.14E-04
ENSG00000165209	STRBP	-0.079	3.15E-04
ENSG00000108946	PRKAR1A	0.050	3.18E-04
ENSG00000137824	RMDN3	-0.052	3.19E-04
ENSG00000234614	C2CD4D-AS1	-0.112	3.21E-04
ENSG00000013725	CD6	-0.072	3.21E-04
ENSG00000185215	TNFAIP2	0.074	3.21E-04
ENSG00000058063	ATP11B	0.038	3.21E-04
ENSG00000113088	GZMK	-0.138	3.22E-04
ENSG00000234851	RPL23AP42	-0.060	3.23E-04
ENSG00000120942	UBIAD1	-0.047	3.23E-04
ENSG00000106133	NSUN5P2	-0.072	3.23E-04
ENSG00000148187	MRRF	-0.041	3.25E-04

ENSG00000103064	SLC7A6	-0.059	3.26E-04
ENSG00000096060	FKBP5	0.088	3.26E-04
ENSG00000196209	SIRPB2	0.086	3.27E-04
ENSG00000109854	HTATIP2	0.048	3.27E-04
ENSG00000150977	RILPL2	0.050	3.30E-04
ENSG00000130338	TULP4	-0.051	3.31E-04
ENSG00000161791	FMNL3	-0.066	3.31E-04
ENSG00000175104	TRAF6	0.027	3.32E-04
ENSG00000089220	PEBP1	-0.055	3.32E-04
ENSG00000213928	IRF9	0.059	3.32E-04
ENSG00000271858	CYB561D2	-0.123	3.37E-04
ENSG00000185291	IL3RA	0.140	3.37E-04
ENSG00000143515	ATP8B2	-0.057	3.37E-04
ENSG00000139436	GIT2	0.039	3.37E-04
ENSG00000285667	AC012291.3	0.060	3.38E-04
ENSG00000075407	ZNF37A	-0.056	3.38E-04
ENSG00000258476	LINC02207	0.144	3.39E-04
ENSG00000167995	BEST1	0.080	3.48E-04
ENSG00000249937	LINC02223	0.255	3.50E-04
ENSG00000136238	RAC1	0.051	3.50E-04
ENSG00000269918	AF131215.6	-0.074	3.56E-04
ENSG00000154165	GPR15	0.145	3.57E-04
ENSG00000071537	SEL1L	0.046	3.60E-04
ENSG00000176463	SLCO3A1	0.058	3.63E-04
ENSG00000136111	TBC1D4	-0.082	3.64E-04
ENSG00000141337	ARSG	0.055	3.64E-04
ENSG00000273129	PACERR	0.115	3.66E-04
ENSG00000160321	ZNF208	-0.154	3.66E-04
ENSG00000011143	MKS1	-0.059	3.68E-04
ENSG00000169220	RGS14	0.054	3.69E-04
ENSG00000115271	GCA	0.083	3.69E-04
ENSG00000138134	STAMBPL1	-0.054	3.69E-04
ENSG00000141401	IMPA2	0.076	3.70E-04
ENSG00000171130	ATP6V0E2	-0.065	3.70E-04
ENSG00000033867	SLC4A7	-0.054	3.71E-04
ENSG00000272918	AC005070.3	0.071	3.71E-04
ENSG00000214900	LINC01588	-0.068	3.72E-04
ENSG00000148399	DPH7	-0.044	3.73E-04
ENSG00000072858	SIDT1	-0.065	3.73E-04
ENSG00000116016	EPAS1	0.136	3.73E-04
ENSG00000125245	GPR18	-0.075	3.73E-04
ENSG00000173212	MAB21L3	0.157	3.73E-04
ENSG00000198780	FAM169A	-0.086	3.75E-04
ENSG00000104324	CPQ	0.064	3.75E-04
ENSG00000101457	DNTTIP1	0.059	3.77E-04
ENSG00000164125	GASK1B	0.080	3.78E-04
ENSG00000122707	RECK	-0.046	3.80E-04

ENSG00000156239	N6AMT1	-0.061	3.80E-04
ENSG00000170190	SLC16A5	0.067	3.80E-04
ENSG00000121957	GPSM2	0.073	3.81E-04
ENSG00000131042	LILRB2	0.074	3.83E-04
ENSG00000116954	RRAGC	0.042	3.83E-04
ENSG00000008394	MGST1	0.085	3.88E-04
ENSG00000105397	TYK2	0.046	3.88E-04
ENSG00000108468	CBX1	0.041	3.89E-04
ENSG00000005812	FBXL3	0.032	3.92E-04
ENSG00000241553	ARPC4	0.037	3.95E-04
ENSG00000135775	COG2	-0.038	3.95E-04
ENSG00000023330	ALAS1	0.045	3.96E-04
ENSG00000100596	SPTLC2	0.050	3.97E-04
ENSG00000156738	MS4A1	-0.121	3.97E-04
ENSG00000144040	SFXN5	0.060	3.97E-04
ENSG00000092020	PPP2R3C	0.053	3.98E-04
ENSG00000095383	TBC1D2	0.055	3.98E-04
ENSG00000021574	SPAST	0.039	3.98E-04
ENSG00000158470	B4GALT5	0.078	3.99E-04
ENSG00000135083	CCNJL	0.109	4.00E-04
ENSG00000236901	MIR600HG	-0.090	4.01E-04
ENSG00000179715	PCED1B	-0.077	4.05E-04
ENSG00000178538	CA8	0.183	4.05E-04
ENSG00000168404	MLKL	0.047	4.06E-04
ENSG00000102786	INTS6	0.035	4.06E-04
ENSG00000136754	ABI1	0.031	4.13E-04
ENSG00000276564	AC130650.2	-0.090	4.13E-04
ENSG00000119408	NEK6	0.068	4.13E-04
ENSG00000100580	TMED8	0.043	4.15E-04
ENSG00000168214	RBPJ	0.050	4.22E-04
ENSG00000276649	AL117335.1	0.087	4.23E-04
ENSG00000134571	MYBPC3	0.101	4.24E-04
ENSG00000198105	ZNF248	-0.050	4.26E-04
ENSG00000173110	HSPA6	0.080	4.31E-04
ENSG00000164398	ACSL6	-0.085	4.32E-04
ENSG00000284691	AC073111.3	-0.088	4.32E-04
ENSG00000162739	SLAMF6	-0.056	4.33E-04
ENSG00000139644	TMBIM6	0.041	4.34E-04
ENSG00000237489	C10orf143	-0.087	4.35E-04
ENSG00000135108	FBXO21	-0.046	4.38E-04
ENSG00000107864	CPEB3	0.054	4.38E-04
ENSG00000161533	ACOX1	0.072	4.39E-04
ENSG00000173559	NABP1	0.062	4.39E-04
ENSG00000138496	PARP9	0.081	4.39E-04
ENSG00000171044	XKR6	-0.084	4.39E-04
ENSG00000125810	CD93	0.080	4.40E-04
ENSG00000172817	CYP7B1	0.180	4.40E-04

ENSG00000185946	RNPC3	0.033	4.41E-04
ENSG00000182162	P2RY8	-0.041	4.42E-04
ENSG00000233184	AC093157.1	-0.063	4.43E-04
ENSG00000171206	TRIM8	0.052	4.43E-04
ENSG00000245848	CEBPA	0.060	4.43E-04
ENSG00000171314	PGAM1	0.039	4.44E-04
ENSG00000188559	RALGAPA2	0.064	4.44E-04
ENSG00000150991	UBC	0.044	4.49E-04
ENSG00000121879	PIK3CA	0.031	4.50E-04
ENSG00000285331	AC090517.5	-0.076	4.51E-04
ENSG00000130150	MOSPD2	0.064	4.52E-04
ENSG00000135426	TESPA1	-0.072	4.54E-04
ENSG00000184677	ZBTB40	-0.042	4.54E-04
ENSG00000180139	ACTA2-AS1	-0.088	4.57E-04
ENSG00000154845	PPP4R1	0.065	4.57E-04
ENSG00000131368	MRPS25	-0.049	4.69E-04
ENSG00000134198	TSPAN2	0.084	4.69E-04
ENSG00000172007	RAB33B	0.053	4.69E-04
ENSG00000115091	ACTR3	0.031	4.69E-04
ENSG00000166128	RAB8B	0.042	4.71E-04
ENSG00000135334	AKIRIN2	0.042	4.71E-04
ENSG00000100605	ITPK1	0.073	4.71E-04
ENSG00000104687	GSR	0.044	4.71E-04
ENSG00000127951	FGL2	0.062	4.71E-04
ENSG00000113494	PRLR	0.140	4.71E-04
ENSG00000112406	HECA	0.029	4.74E-04
ENSG00000144635	DYNC1LI1	0.052	4.77E-04
ENSG00000168040	FADD	0.043	4.77E-04
ENSG00000174306	ZHX3	-0.104	4.80E-04
ENSG00000136827	TOR1A	0.032	4.83E-04
ENSG00000118515	SGK1	0.067	4.84E-04
ENSG00000213613	RPL11P3	0.076	4.85E-04
ENSG00000090621	PABPC4	-0.038	4.85E-04
ENSG00000198400	NTRK1	0.221	4.85E-04
ENSG00000184602	SNN	0.061	4.85E-04
ENSG00000224078	SNHG14	-0.055	4.85E-04
ENSG00000236144	TMEM147-AS1	-0.059	4.87E-04
ENSG00000186432	KPNA4	0.027	4.88E-04
ENSG00000288156	AC104530.1	0.056	4.88E-04
ENSG00000237803	LINC00211	0.113	4.89E-04
ENSG00000139641	ESYT1	-0.046	4.90E-04
ENSG00000065613	SLK	0.046	4.92E-04
ENSG00000123066	MED13L	0.042	4.94E-04
ENSG00000242134	RPL5P13	-0.124	4.97E-04
ENSG00000141076	UTP4	-0.055	4.98E-04
ENSG00000287644	AC080112.4	0.170	4.98E-04
ENSG00000238105	GOLGA2P5	-0.064	5.06E-04

ENSG00000211791	TRAV13-2	-0.111	5.06E-04
ENSG00000275131	PDE4DIPP2	-0.057	5.06E-04
ENSG00000185753	CXorf38	0.028	5.07E-04
ENSG00000139631	CSAD	0.075	5.09E-04
ENSG00000104915	STX10	0.051	5.10E-04
ENSG00000137393	RNF144B	0.069	5.10E-04
ENSG00000159958	TNFRSF13C	-0.128	5.12E-04
ENSG00000137070	IL11RA	-0.072	5.14E-04
ENSG00000141526	SLC16A3	0.072	5.16E-04
ENSG00000234807	LINC01135	-0.107	5.18E-04
ENSG00000257489	AC010203.1	-0.108	5.18E-04
ENSG00000143653	SCCPDH	0.065	5.18E-04
ENSG00000165609	NUDT5	0.042	5.18E-04
ENSG00000231752	EMBP1	-0.080	5.18E-04
ENSG00000103194	USP10	0.070	5.20E-04
ENSG00000177455	CD19	-0.130	5.22E-04
ENSG00000149269	PAK1	0.059	5.22E-04
ENSG00000104325	DECR1	0.036	5.22E-04
ENSG00000136444	RSAD1	-0.043	5.26E-04
ENSG00000173614	NMNAT1	0.053	5.26E-04
ENSG00000137845	ADAM10	0.038	5.26E-04
ENSG00000163659	TIPARP	0.040	5.26E-04
ENSG00000175938	ORAI3	0.054	5.26E-04
ENSG00000138449	SLC40A1	0.065	5.27E-04
ENSG00000187922	LCN10	-0.164	5.32E-04
ENSG00000114423	CBLB	-0.058	5.32E-04
ENSG00000100347	SAMM50	-0.038	5.32E-04
ENSG00000132694	ARHGEF11	0.077	5.32E-04
ENSG00000124783	SSR1	0.030	5.32E-04
ENSG00000167272	POP5	-0.053	5.32E-04
ENSG00000006025	OSBPL7	-0.078	5.32E-04
ENSG00000281005	LINC00921	0.056	5.32E-04
ENSG00000119917	IFIT3	0.154	5.32E-04
ENSG00000104450	SPAG1	0.103	5.37E-04
ENSG00000137312	FLOT1	0.060	5.41E-04
ENSG00000287480	AL158832.2	0.113	5.42E-04
ENSG00000270562	AC097634.1	0.060	5.42E-04
ENSG00000038219	BOD1L1	0.049	5.43E-04
ENSG00000258561	AL359232.1	-0.136	5.45E-04
ENSG00000163694	RBM47	0.084	5.45E-04
ENSG00000116514	RNF19B	0.062	5.47E-04
ENSG00000169905	TOR1AIP2	0.028	5.51E-04
ENSG00000177191	B3GNT8	0.101	5.51E-04
ENSG00000231047	GCNT1P3	0.099	5.51E-04
ENSG00000119541	VPS4B	0.035	5.51E-04
ENSG00000118217	ATF6	0.047	5.52E-04
ENSG00000104763	ASAH1	0.055	5.53E-04

ENSG00000085871	MGST2	0.068	5.57E-04
ENSG00000134815	DHX34	0.065	5.60E-04
ENSG00000247626	MARS2	-0.046	5.61E-04
ENSG00000108061	SHOC2	0.039	5.62E-04
ENSG00000272563	AC016745.2	0.114	5.62E-04
ENSG00000196684	HSH2D	0.066	5.64E-04
ENSG00000089775	ZBTB25	-0.047	5.64E-04
ENSG00000197746	PSAP	0.055	5.64E-04
ENSG00000151948	GLT1D1	0.081	5.68E-04
ENSG00000110880	CORO1C	0.059	5.68E-04
ENSG00000183023	SLC8A1	0.077	5.68E-04
ENSG00000137054	POLR1E	-0.052	5.69E-04
ENSG00000007312	CD79B	-0.097	5.69E-04
ENSG00000189077	TMEM120A	0.067	5.69E-04
ENSG00000169180	XPO6	0.068	5.70E-04
ENSG00000268027	AC243960.1	-0.075	5.70E-04
ENSG00000162341	TPCN2	0.071	5.72E-04
ENSG00000177479	ARIH2	-0.031	5.74E-04
ENSG00000161638	ITGA5	0.054	5.74E-04
ENSG00000211794	TRAV12-3	-0.100	5.78E-04
ENSG00000196549	MME	0.099	5.78E-04
ENSG00000117758	STX12	0.032	5.78E-04
ENSG00000203804	ADAMTSL4-AS1	0.086	5.81E-04
ENSG00000198242	RPL23A	-0.051	5.85E-04
ENSG00000137752	CASP1	0.052	5.89E-04
ENSG00000153786	ZDHHC7	0.040	5.89E-04
ENSG00000105514	RAB3D	0.075	5.89E-04
ENSG00000185825	BCAP31	0.036	5.89E-04
ENSG00000130816	DNMT1	-0.055	5.95E-04
ENSG00000152454	ZNF256	-0.063	5.95E-04
ENSG00000182866	LCK	-0.056	5.97E-04
ENSG00000111716	LDHB	-0.067	5.99E-04
ENSG00000158201	ABHD3	0.050	5.99E-04
ENSG00000035862	TIMP2	0.080	6.01E-04
ENSG00000015171	ZMYND11	-0.042	6.05E-04
ENSG00000015475	BID	0.054	6.06E-04
ENSG00000011523	CEP68	-0.052	6.08E-04
ENSG00000112303	VNN2	0.089	6.08E-04
ENSG00000260078	AC007342.3	0.083	6.09E-04
ENSG00000182220	ATP6AP2	0.037	6.11E-04
ENSG00000253924	AC103831.1	-0.147	6.11E-04
ENSG00000107099	DOCK8	0.046	6.12E-04
ENSG00000183918	SH2D1A	-0.085	6.17E-04
ENSG00000178966	RMI1	0.051	6.17E-04
ENSG00000226571	AL592429.2	-0.190	6.17E-04
ENSG00000141096	DPEP3	0.105	6.17E-04
ENSG00000036530	CYP46A1	-0.220	6.17E-04

ENSG00000247982	LINC00926	-0.127	6.17E-04
ENSG00000231826	LINC01819	0.160	6.17E-04
ENSG00000274523	RCC1L	-0.042	6.17E-04
ENSG00000100335	MIEF1	-0.047	6.19E-04
ENSG00000090487	SPG21	0.037	6.24E-04
ENSG00000213782	DDX47	-0.036	6.26E-04
ENSG00000284428	AC092329.4	-0.057	6.26E-04
ENSG00000266472	MRPS21	-0.060	6.26E-04
ENSG00000151150	ANK3	-0.085	6.32E-04
ENSG00000196235	SUPT5H	-0.042	6.32E-04
ENSG00000149136	SSRP1	-0.038	6.32E-04
ENSG00000128284	APOL3	-0.046	6.33E-04
ENSG00000122025	FLT3	0.110	6.34E-04
ENSG00000023287	RB1CC1	0.042	6.34E-04
ENSG00000204650	LINC02210	-0.068	6.34E-04
ENSG00000167080	B4GALNT2	0.107	6.34E-04
ENSG00000237637	FRY-AS1	0.120	6.34E-04
ENSG00000174500	GCSAM	-0.073	6.39E-04
ENSG00000154269	ENPP3	0.169	6.44E-04
ENSG00000102524	TNFSF13B	0.077	6.47E-04
ENSG00000196470	SIAH1	0.039	6.48E-04
ENSG00000116711	PLA2G4A	0.067	6.58E-04
ENSG00000180061	TMEM150B	0.102	6.59E-04
ENSG00000173200	PARP15	-0.067	6.61E-04
ENSG00000253719	ATXN7L3B	-0.028	6.66E-04
ENSG00000142687	KIAA0319L	0.056	6.66E-04
ENSG00000023318	ERP44	0.030	6.68E-04
ENSG00000103769	RAB11A	0.040	6.69E-04
ENSG00000145868	FBXO38	0.040	6.69E-04
ENSG00000136021	SCYL2	0.038	6.71E-04
ENSG00000241657	TRBV11-2	-0.127	6.73E-04
ENSG00000143226	FCGR2A	0.071	6.73E-04
ENSG00000143815	LBR	0.053	6.75E-04
ENSG00000110324	IL10RA	-0.038	6.75E-04
ENSG00000165025	SYK	0.052	6.76E-04
ENSG00000125630	POLR1B	-0.061	6.76E-04
ENSG00000138095	LRPPRC	-0.039	6.76E-04
ENSG00000176160	HSF5	-0.073	6.76E-04
ENSG00000186529	CYP4F3	0.097	6.78E-04
ENSG00000075651	PLD1	0.078	6.81E-04
ENSG00000060491	OGFR	0.044	6.81E-04
ENSG00000072864	NDE1	0.050	6.81E-04
ENSG00000140575	IQGAP1	0.059	6.84E-04
ENSG00000119285	HEATR1	-0.053	6.85E-04
ENSG00000168961	LGALS9	0.077	6.92E-04
ENSG00000125753	VASP	0.060	6.98E-04
ENSG00000243156	MICAL3	-0.076	7.00E-04

ENSG00000145247	OCIAD2	-0.089	7.01E-04
ENSG00000079335	CDC14A	-0.045	7.03E-04
ENSG00000153107	ANAPC1	-0.044	7.04E-04
ENSG00000259642	ST20-AS1	0.073	7.06E-04
ENSG00000130024	PHF10	-0.042	7.07E-04
ENSG00000238005	AL391832.2	0.100	7.12E-04
ENSG00000170264	FAM161A	-0.141	7.13E-04
ENSG00000204304	PBX2	0.052	7.13E-04
ENSG00000172939	OXSRI	0.037	7.23E-04
ENSG00000203644	AC083799.1	0.070	7.26E-04
ENSG00000139537	CCDC65	-0.102	7.27E-04
ENSG00000100030	MAPK1	0.044	7.27E-04
ENSG00000261167	AC107027.3	-0.054	7.28E-04
ENSG00000160613	PCSK7	-0.044	7.28E-04
ENSG00000111364	DDX55	-0.042	7.28E-04
ENSG00000198692	EIF1AY	-0.116	7.31E-04
ENSG00000113303	BTNL8	0.096	7.33E-04
ENSG00000114353	GNAI2	0.046	7.33E-04
ENSG00000287387	AC010883.3	0.090	7.33E-04
ENSG00000243806	RPL7P18	0.097	7.33E-04
ENSG00000196116	TDRD7	0.051	7.35E-04
ENSG00000035681	NSMAF	0.042	7.40E-04
ENSG00000051108	HERPUD1	0.031	7.40E-04
ENSG00000119535	CSF3R	0.075	7.40E-04
ENSG00000271109	AC008555.4	-0.081	7.40E-04
ENSG00000138382	METTL5	-0.069	7.42E-04
ENSG00000260361	AC106028.3	0.134	7.47E-04
ENSG00000273812	BX640514.2	0.125	7.47E-04
ENSG00000133961	NUMB	0.065	7.47E-04
ENSG00000185418	TARS3	-0.049	7.49E-04
ENSG00000161010	MRNIP	-0.070	7.52E-04
ENSG00000114062	UBE3A	-0.036	7.58E-04
ENSG00000197956	S100A6	0.051	7.59E-04
ENSG00000197385	ZNF860	-0.139	7.59E-04
ENSG00000103381	CPPED1	0.073	7.60E-04
ENSG00000140320	BAHD1	-0.048	7.66E-04
ENSG00000270426	AC099343.2	0.050	7.66E-04
ENSG00000113263	ITK	-0.051	7.66E-04
ENSG00000100368	CSF2RB	0.074	7.69E-04
ENSG00000140563	MCTP2	0.065	7.72E-04
ENSG00000147044	CASK	-0.053	7.72E-04
ENSG00000116127	ALMS1	-0.050	7.72E-04
ENSG00000227825	SLC9A7P1	0.080	7.74E-04
ENSG00000197457	STMN3	-0.059	7.76E-04
ENSG00000181026	AEN	-0.055	7.77E-04
ENSG00000139496	NUP58	0.038	7.81E-04
ENSG00000155096	AZIN1	0.031	7.82E-04

ENSG00000029364	SLC39A9	0.022	7.85E-04
ENSG00000169884	WNT10B	-0.103	7.89E-04
ENSG00000134318	ROCK2	0.042	7.89E-04
ENSG00000169045	HNRNPH1	-0.034	7.89E-04
ENSG00000133134	BEX2	-0.111	7.89E-04
ENSG00000104218	CSPP1	-0.048	7.91E-04
ENSG00000164105	SAP30	0.072	7.92E-04
ENSG00000148110	MFSD14B	0.047	7.95E-04
ENSG00000066336	SPI1	0.074	7.98E-04
ENSG00000142347	MYO1F	0.060	8.01E-04
ENSG00000147457	CHMP7	-0.042	8.03E-04
ENSG00000105369	CD79A	-0.120	8.05E-04
ENSG00000204116	CHIC1	-0.055	8.05E-04
ENSG00000153339	TRAPPC8	0.032	8.08E-04
ENSG00000224451	ATP5PBP1	0.092	8.09E-04
ENSG00000151458	ANKRD50	0.054	8.10E-04
ENSG00000075856	SART3	-0.035	8.11E-04
ENSG00000174007	CEP19	0.077	8.11E-04
ENSG00000127922	SEM1	-0.055	8.14E-04
ENSG00000260452	TPRKBP2	0.083	8.14E-04
ENSG00000178028	DMAP1	-0.039	8.17E-04
ENSG00000152795	HNRNPDL	-0.031	8.17E-04
ENSG00000215252	GOLGA8B	-0.072	8.23E-04
ENSG00000080371	RAB21	0.038	8.24E-04
ENSG00000173011	TADA2B	0.032	8.26E-04
ENSG00000054392	HHAT	-0.072	8.26E-04
ENSG00000131002	TXLNGY	-0.057	8.27E-04
ENSG00000287091	AC009961.3	0.084	8.28E-04
ENSG00000123728	RAP2C	0.043	8.30E-04
ENSG00000055332	EIF2AK2	0.095	8.30E-04
ENSG00000174130	TLR6	0.070	8.34E-04
ENSG00000073921	PICALM	0.049	8.34E-04
ENSG00000007237	GAS7	0.077	8.35E-04
ENSG00000022567	SLC45A4	0.066	8.35E-04
ENSG00000132334	PTPRE	0.047	8.37E-04
ENSG00000083454	P2RX5	-0.088	8.37E-04
ENSG00000126861	OMG	0.103	8.37E-04
ENSG00000233030	AC243772.2	0.140	8.37E-04
ENSG00000198315	ZKSCAN8	-0.036	8.38E-04
ENSG00000115365	LANCL1	-0.043	8.40E-04
ENSG00000148450	MSRB2	0.084	8.44E-04
ENSG00000174669	SLC29A2	-0.114	8.56E-04
ENSG00000275791	TRBV10-3	-0.114	8.56E-04
ENSG00000145349	CAMK2D	-0.050	8.56E-04
ENSG00000245164	LINC00861	-0.058	8.62E-04
ENSG00000103507	BCKDK	0.050	8.66E-04
ENSG00000130775	THEMIS2	0.054	8.66E-04

ENSG00000241975	ELOCP19	0.062	8.68E-04
ENSG00000180822	PSMG4	-0.048	8.68E-04
ENSG00000243667	WDR92	-0.059	8.68E-04
ENSG00000127334	DYRK2	-0.044	8.69E-04
ENSG00000151065	DCP1B	-0.049	8.72E-04
ENSG00000261218	AC099524.1	0.102	8.72E-04
ENSG00000105373	NOP53	-0.056	8.75E-04
ENSG00000082014	SMARCD3	0.065	8.75E-04
ENSG00000126226	PCID2	-0.040	8.76E-04
ENSG00000160654	CD3G	-0.061	8.78E-04
ENSG00000184178	SCFD2	-0.042	8.86E-04
ENSG00000075785	RAB7A	0.052	8.92E-04
ENSG00000152380	FAM151B	0.083	8.93E-04
ENSG00000169087	HSPBAP1	0.051	8.95E-04
ENSG00000148180	GSN	0.074	8.96E-04
ENSG00000182700	IGIP	-0.043	8.96E-04
ENSG00000164054	SHISA5	0.054	9.03E-04
ENSG00000148158	SNX30	0.033	9.03E-04
ENSG00000135272	MDFIC	-0.045	9.03E-04
ENSG00000220323	H2BC19P	0.052	9.06E-04
ENSG00000163820	FYCO1	-0.059	9.10E-04
ENSG00000196954	CASP4	0.052	9.10E-04
ENSG00000065559	MAP2K4	0.046	9.10E-04
ENSG00000225101	OR52K3P	0.087	9.10E-04
ENSG00000241157	RPL32P32	0.075	9.10E-04
ENSG00000264663	KRT8P34	-0.087	9.16E-04
ENSG00000150457	LATS2	0.052	9.16E-04
ENSG00000107077	KDM4C	-0.040	9.16E-04
ENSG00000119820	YIPF4	0.044	9.17E-04
ENSG00000155966	AFF2	0.088	9.18E-04
ENSG00000107736	CDH23	0.062	9.21E-04
ENSG00000164603	BMT2	0.043	9.21E-04
ENSG00000133935	ERG28	-0.049	9.22E-04
ENSG00000139112	GABARAPL1	0.055	9.25E-04
ENSG00000117419	ERI3	-0.060	9.26E-04
ENSG00000172775	PSME3IP1	0.027	9.26E-04
ENSG00000129636	ITFG1	0.031	9.27E-04
ENSG00000183283	DAZAP2	0.047	9.38E-04
ENSG00000177663	IL17RA	0.068	9.38E-04
ENSG00000117602	RCAN3	-0.065	9.38E-04
ENSG00000058600	POLR3E	-0.048	9.38E-04
ENSG00000096063	SRPK1	0.066	9.41E-04
ENSG00000135698	MPHOSPH6	-0.060	9.42E-04
ENSG00000112182	BACH2	-0.105	9.44E-04
ENSG00000073331	ALPK1	0.080	9.46E-04
ENSG00000132394	EEFSEC	-0.058	9.46E-04
ENSG00000100504	PYGL	0.078	9.48E-04

ENSG00000237753	AC079922.2	-0.069	9.51E-04
ENSG00000106049	HIBADH	-0.050	9.53E-04
ENSG00000135250	SRPK2	0.049	9.54E-04
ENSG00000122484	RPAP2	-0.054	9.56E-04
ENSG00000170836	PPM1D	0.038	9.57E-04
ENSG00000123505	AMD1	0.039	9.58E-04
ENSG00000226822	LINC02785	0.107	9.61E-04
ENSG00000105355	PLIN3	0.062	9.70E-04
ENSG00000138613	APH1B	0.046	9.70E-04
ENSG00000119401	TRIM32	-0.050	9.70E-04
ENSG00000130724	CHMP2A	0.053	9.70E-04
ENSG00000112782	CLIC5	-0.096	9.73E-04
ENSG00000138614	INTS14	-0.043	9.74E-04
ENSG00000102010	BMX	0.121	9.75E-04
ENSG00000163832	ELP6	-0.048	9.86E-04
ENSG00000135925	WNT10A	-0.124	9.89E-04
ENSG00000186106	ANKRD46	-0.046	9.97E-04
ENSG00000117262	GPR89A	-0.063	9.98E-04
ENSG00000204252	HLA-DOA	-0.088	1.00E-03
ENSG00000213373	LINC00671	0.137	1.00E-03
ENSG00000211772	TRBC2	-0.060	1.00E-03
ENSG00000107341	UBE2R2	0.054	1.02E-03
ENSG00000179041	RRS1	-0.052	1.02E-03
ENSG00000167851	CD300A	0.051	1.03E-03
ENSG00000140455	USP3	0.041	1.03E-03
ENSG00000158710	TAGLN2	0.069	1.04E-03
ENSG00000206199	ANKUB1	0.133	1.04E-03
ENSG00000275835	TUBGCP5	-0.064	1.04E-03
ENSG00000157734	SNX22	-0.098	1.04E-03
ENSG00000196700	ZNF512B	-0.064	1.05E-03
ENSG00000108298	RPL19	-0.051	1.05E-03
ENSG00000036549	ZZZ3	-0.042	1.05E-03
ENSG00000183044	ABAT	0.065	1.05E-03
ENSG00000256262	USP30-AS1	-0.099	1.05E-03
ENSG00000101367	MAPRE1	0.026	1.05E-03
ENSG00000185252	ZNF74	-0.047	1.06E-03
ENSG00000112851	ERBIN	0.031	1.06E-03
ENSG00000167986	DDB1	-0.048	1.07E-03
ENSG00000204946	ZNF783	-0.042	1.07E-03
ENSG00000187862	TTC24	-0.124	1.07E-03
ENSG00000115604	IL18R1	0.077	1.07E-03
ENSG00000134489	HRH4	0.127	1.07E-03
ENSG00000141040	ZNF287	-0.096	1.08E-03
ENSG00000132185	FCRLA	-0.116	1.08E-03
ENSG00000038427	VCAN	0.079	1.08E-03
ENSG00000101019	UQCC1	-0.043	1.08E-03
ENSG00000141753	IGFBP4	-0.124	1.08E-03

ENSG00000122359	ANXA11	0.047	1.09E-03
ENSG00000144535	DIS3L2	-0.050	1.09E-03
ENSG00000012232	EXTL3	0.063	1.09E-03
ENSG00000183486	MX2	0.073	1.09E-03
ENSG00000264456	AC138207.4	0.069	1.10E-03
ENSG00000285219	HULC	-0.121	1.10E-03
ENSG00000152217	SETBP1	-0.074	1.10E-03
ENSG00000130921	C12orf65	-0.046	1.10E-03
ENSG00000103569	AQP9	0.083	1.10E-03
ENSG00000180229	HERC2P3	-0.076	1.10E-03
ENSG00000155957	TMBIM4	0.043	1.10E-03
ENSG00000067992	PDK3	0.050	1.10E-03
ENSG00000167286	CD3D	-0.083	1.11E-03
ENSG00000180884	ZNF792	-0.035	1.11E-03
ENSG00000229124	VIM-AS1	0.040	1.11E-03
ENSG00000134453	RBM17	-0.029	1.11E-03
ENSG00000119927	GPAM	-0.050	1.12E-03
ENSG00000215717	TMEM167B	0.038	1.12E-03
ENSG00000146909	NOM1	-0.053	1.12E-03
ENSG00000260572	AC069224.1	-0.086	1.12E-03
ENSG00000241685	ARPC1A	0.032	1.12E-03
ENSG00000198838	RYR3	0.238	1.12E-03
ENSG00000176155	CCDC57	-0.048	1.13E-03
ENSG00000054967	RELT	0.051	1.13E-03
ENSG00000265148	TSPOAP1-AS1	-0.045	1.13E-03
ENSG00000157036	EXOG	-0.063	1.13E-03
ENSG00000132623	ANKEF1	-0.069	1.13E-03
ENSG00000100938	GMPR2	0.035	1.13E-03
ENSG00000197958	RPL12	-0.055	1.13E-03
ENSG00000183960	KCNH8	-0.141	1.14E-03
ENSG00000163625	WDFY3	0.081	1.14E-03
ENSG00000133422	MORC2	-0.044	1.14E-03
ENSG00000121966	CXCR4	0.046	1.14E-03
ENSG00000203875	SNHG5	-0.099	1.14E-03
ENSG00000186854	TRABD2A	-0.076	1.14E-03
ENSG00000140199	SLC12A6	0.059	1.14E-03
ENSG00000150990	DHX37	-0.051	1.15E-03
ENSG00000233730	LINC01765	0.140	1.15E-03
ENSG00000185591	SP1	0.049	1.15E-03
ENSG00000189152	GRAPL	-0.087	1.15E-03
ENSG00000145191	EIF2B5	-0.034	1.15E-03
ENSG00000127947	PTPN12	0.057	1.16E-03
ENSG00000082074	FYB1	0.043	1.16E-03
ENSG00000183323	CCDC125	0.058	1.16E-03
ENSG00000161921	CXCL16	0.087	1.16E-03
ENSG00000116815	CD58	0.045	1.16E-03
ENSG00000138814	PPP3CA	0.042	1.16E-03

ENSG00000087448	KLHL42	-0.042	1.17E-03
ENSG00000073150	PANX2	0.117	1.17E-03
ENSG00000247828	TMEM161B-AS1	-0.041	1.17E-03
ENSG00000196154	S100A4	0.047	1.17E-03
ENSG00000086589	RBM22	0.027	1.19E-03
ENSG00000132382	MYBBP1A	-0.074	1.20E-03
ENSG00000146376	ARHGAP18	0.055	1.20E-03
ENSG00000088832	FKBP1A	0.045	1.20E-03
ENSG00000113712	CSNK1A1	0.022	1.21E-03
ENSG00000196358	NTNG2	0.086	1.21E-03
ENSG00000235505	CASP4LP	-0.094	1.21E-03
ENSG00000134215	VAV3	0.039	1.21E-03
ENSG00000165272	AQP3	-0.072	1.21E-03
ENSG00000139668	WDFY2	0.051	1.22E-03
ENSG00000174021	GNG5	0.058	1.22E-03
ENSG00000136040	PLXNC1	0.070	1.22E-03
ENSG00000152495	CAMK4	-0.073	1.22E-03
ENSG00000082438	COBLL1	-0.094	1.23E-03
ENSG00000239305	RNF103	0.028	1.23E-03
ENSG00000237988	OR2I1P	0.224	1.23E-03
ENSG00000196284	SUPT3H	-0.064	1.23E-03
ENSG00000121057	AKAP1	-0.062	1.23E-03
ENSG00000145911	N4BP3	-0.101	1.24E-03
ENSG00000055211	GINM1	0.042	1.24E-03
ENSG00000103550	KNOP1	-0.059	1.25E-03
ENSG00000136059	VILL	-0.050	1.25E-03
ENSG00000223496	EXOSC6	-0.042	1.25E-03
ENSG00000119048	UBE2B	0.059	1.25E-03
ENSG00000196730	DAPK1	0.080	1.25E-03
ENSG00000188848	BEND4	-0.106	1.26E-03
ENSG00000160588	MPZL3	0.064	1.26E-03
ENSG00000154856	APCDD1	0.175	1.26E-03
ENSG00000266709	AC005224.3	-0.053	1.26E-03
ENSG00000287431	AC027601.5	0.108	1.26E-03
ENSG00000186088	GSAP	-0.042	1.26E-03
ENSG00000206053	JPT2	-0.040	1.26E-03
ENSG00000163739	CXCL1	0.095	1.26E-03
ENSG00000155158	TTC39B	-0.052	1.26E-03
ENSG00000151553	FAM160B1	0.051	1.27E-03
ENSG00000155111	CDK19	0.053	1.27E-03
ENSG00000288398	AL109627.1	-0.073	1.27E-03
ENSG00000106348	IMPDH1	0.058	1.28E-03
ENSG00000177570	SAMD12	-0.097	1.28E-03
ENSG00000172062	SMN1	-0.066	1.28E-03
ENSG00000184292	TACSTD2	0.244	1.28E-03
ENSG00000171714	ANO5	0.128	1.28E-03
ENSG00000284526	AC015802.6	0.112	1.28E-03

ENSG00000078747	ITCH	0.032	1.28E-03
ENSG00000072401	UBE2D1	0.072	1.28E-03
ENSG00000272501	AL662844.4	0.054	1.28E-03
ENSG00000184640	SEPTIN9	-0.034	1.28E-03
ENSG00000011422	PLAUR	0.066	1.28E-03
ENSG00000162496	DHRS3	-0.059	1.28E-03
ENSG00000071553	ATP6AP1	0.044	1.29E-03
ENSG00000270276	H4C15	0.075	1.29E-03
ENSG00000204160	ZDHC18	0.068	1.29E-03
ENSG00000198205	ZXDA	-0.048	1.29E-03
ENSG00000150961	SEC24D	0.045	1.29E-03
ENSG00000131778	CHD1L	-0.040	1.29E-03
ENSG00000145592	RPL37	-0.068	1.29E-03
ENSG00000286127	AP000553.8	0.107	1.30E-03
ENSG00000119844	AFTPH	0.029	1.30E-03
ENSG00000213658	LAT	-0.055	1.30E-03
ENSG00000128594	LRRC4	0.087	1.30E-03
ENSG00000198053	SIRPA	0.071	1.30E-03
ENSG00000167113	COQ4	-0.044	1.31E-03
ENSG00000188313	PLSCR1	0.088	1.31E-03
ENSG00000165046	LETM2	0.084	1.32E-03
ENSG00000010803	SCMH1	-0.060	1.32E-03
ENSG00000149289	ZC3H12C	0.073	1.32E-03
ENSG00000186020	ZNF529	-0.050	1.32E-03
ENSG00000237298	TTN-AS1	0.046	1.32E-03
ENSG00000188186	LAMTOR4	0.050	1.32E-03
ENSG00000099956	SMARCB1	-0.049	1.32E-03
ENSG00000164251	F2RL1	0.090	1.32E-03
ENSG00000153933	DGKE	-0.053	1.32E-03
ENSG00000151503	NCAPD3	-0.052	1.32E-03
ENSG00000173281	PPP1R3B	0.073	1.33E-03
ENSG00000001167	NFYA	0.027	1.33E-03
ENSG00000105176	URI1	-0.047	1.33E-03
ENSG00000181631	P2RY13	0.067	1.33E-03
ENSG00000124126	PREX1	0.060	1.34E-03
ENSG00000132199	ENOSF1	-0.072	1.34E-03
ENSG00000196793	ZNF239	-0.092	1.34E-03
ENSG00000171488	LRRC8C	-0.037	1.34E-03
ENSG00000136718	IMP4	-0.045	1.34E-03
ENSG00000176659	C20orf197	0.064	1.34E-03
ENSG00000107201	DDX58	0.071	1.35E-03
ENSG00000137161	CNPY3	0.040	1.35E-03
ENSG00000155961	RAB39B	-0.041	1.35E-03
ENSG00000166860	ZBTB39	-0.037	1.36E-03
ENSG00000159753	CARMIL2	-0.092	1.36E-03
ENSG00000179604	CDC42EP4	0.088	1.36E-03
ENSG00000143486	EIF2D	-0.036	1.36E-03

ENSG00000137331	IER3	0.079	1.36E-03
ENSG00000197372	ZNF675	-0.059	1.36E-03
ENSG00000133424	LARGE1	-0.128	1.36E-03
ENSG00000166527	CLEC4D	0.095	1.37E-03
ENSG00000120278	PLEKHG1	-0.114	1.37E-03
ENSG00000278600	AC015871.3	0.059	1.37E-03
ENSG00000138386	NAB1	0.036	1.37E-03
ENSG00000151726	ACSL1	0.094	1.38E-03
ENSG00000180357	ZNF609	-0.041	1.38E-03
ENSG00000168010	ATG16L2	0.067	1.38E-03
ENSG00000117616	RSRP1	0.039	1.38E-03
ENSG00000128872	TMOD2	0.049	1.38E-03
ENSG00000102144	PGK1	0.035	1.38E-03
ENSG00000112249	ASCC3	-0.045	1.38E-03
ENSG00000163312	HELQ	-0.040	1.39E-03
ENSG00000173825	TIGD3	0.087	1.39E-03
ENSG00000112053	SLC26A8	0.119	1.39E-03
ENSG00000100926	TM9SF1	0.036	1.39E-03
ENSG00000267174	AC011472.2	0.143	1.39E-03
ENSG00000101224	CDC25B	-0.065	1.40E-03
ENSG00000134827	TCN1	0.127	1.40E-03
ENSG00000132205	EMILIN2	0.052	1.40E-03
ENSG00000228956	SATB1-AS1	-0.065	1.40E-03
ENSG00000286545	AC092645.2	-0.098	1.40E-03
ENSG00000122512	PMS2	-0.040	1.41E-03
ENSG00000176055	MBLAC2	-0.052	1.41E-03
ENSG00000117597	UTP25	-0.040	1.41E-03
ENSG00000266338	NBPF15	-0.062	1.41E-03
ENSG00000132323	ILKAP	-0.041	1.43E-03
ENSG00000110665	C11orf21	0.039	1.43E-03
ENSG00000188785	ZNF548	-0.050	1.43E-03
ENSG00000240505	TNFRSF13B	-0.160	1.44E-03
ENSG00000198879	SFMBT2	-0.044	1.45E-03
ENSG00000139890	REM2	0.080	1.45E-03
ENSG00000095370	SH2D3C	0.047	1.45E-03
ENSG00000184205	TSPYL2	-0.062	1.45E-03
ENSG00000163932	PRKCD	0.059	1.46E-03
ENSG00000112149	CD83	-0.059	1.47E-03
ENSG00000125354	SEPTIN6	-0.036	1.47E-03
ENSG00000165819	METTL3	-0.030	1.47E-03
ENSG00000095319	NUP188	-0.062	1.47E-03
ENSG00000168769	TET2	0.057	1.47E-03
ENSG00000258082	AL391832.3	0.076	1.47E-03
ENSG00000213551	DNAJC9	-0.040	1.47E-03
ENSG00000105520	PLPPR2	0.085	1.47E-03
ENSG00000104419	NDRG1	0.040	1.48E-03
ENSG00000132581	SDF2	0.033	1.48E-03

ENSG00000185477	GPRIN3	-0.041	1.48E-03
ENSG00000197043	ANXA6	-0.040	1.48E-03
ENSG00000076321	KLHL20	-0.037	1.48E-03
ENSG00000180376	CCDC66	-0.055	1.48E-03
ENSG00000155666	KDM8	-0.077	1.48E-03
ENSG00000225873	C3orf86	0.093	1.48E-03
ENSG00000111897	SERINC1	0.045	1.48E-03
ENSG00000139722	VPS37B	0.046	1.49E-03
ENSG00000125735	TNFSF14	0.058	1.49E-03
ENSG00000270157	AC004918.3	-0.057	1.49E-03
ENSG00000154188	ANGPT1	0.113	1.49E-03
ENSG00000270120	AC007728.3	0.086	1.49E-03
ENSG00000167526	RPL13	-0.058	1.49E-03
ENSG00000008083	JARID2	0.048	1.50E-03
ENSG00000170759	KIF5B	0.035	1.50E-03
ENSG00000287771	AC007271.1	0.128	1.50E-03
ENSG00000183621	ZNF438	0.062	1.50E-03
ENSG00000103490	PYCARD	0.056	1.50E-03
ENSG00000263606	CHORDC1P4	0.054	1.50E-03
ENSG00000186462	NAP1L2	-0.091	1.50E-03
ENSG00000108244	KRT23	0.107	1.50E-03
ENSG00000130713	EXOSC2	-0.043	1.51E-03
ENSG00000111728	ST8SIA1	-0.096	1.51E-03
ENSG00000105339	DENND3	0.078	1.51E-03
ENSG00000163464	CXCR1	0.083	1.51E-03
ENSG00000090989	EXOC1	0.034	1.51E-03
ENSG00000232593	KANTR	-0.043	1.51E-03
ENSG00000231856	AL162377.1	0.058	1.51E-03
ENSG00000075223	SEMA3C	0.076	1.52E-03
ENSG00000117676	RPS6KA1	0.043	1.52E-03
ENSG00000197249	SERPINA1	0.074	1.54E-03
ENSG00000266094	RASSF5	0.030	1.54E-03
ENSG00000157388	CACNA1D	0.128	1.54E-03
ENSG00000068024	HDAC4	0.064	1.55E-03
ENSG00000178498	DTX3	-0.090	1.55E-03
ENSG00000154764	WNT7A	-0.140	1.55E-03
ENSG00000133398	MED10	-0.035	1.56E-03
ENSG00000108840	HDAC5	0.056	1.57E-03
ENSG00000108559	NUP88	-0.052	1.58E-03
ENSG00000183625	CCR3	0.107	1.58E-03
ENSG00000229191	AL358473.1	0.113	1.58E-03
ENSG00000131759	RARA	0.064	1.58E-03
ENSG00000173890	GPR160	0.065	1.58E-03
ENSG00000149257	SERPINH1	-0.071	1.59E-03
ENSG00000101558	VAPA	0.040	1.59E-03
ENSG00000001461	NIPAL3	-0.040	1.59E-03
ENSG00000244627	TPTEP2	0.053	1.60E-03

ENSG00000246084	LINC02325	-0.058	1.61E-03
ENSG00000277734	TRAC	-0.059	1.61E-03
ENSG00000160087	UBE2J2	0.028	1.61E-03
ENSG00000155313	USP25	0.031	1.61E-03
ENSG00000163399	ATP1A1	-0.034	1.62E-03
ENSG00000104228	TRIM35	-0.041	1.62E-03
ENSG00000170473	PYM1	-0.040	1.62E-03
ENSG00000102393	GLA	0.050	1.64E-03
ENSG00000148841	ITPRIP	0.058	1.64E-03
ENSG00000113319	RASGRF2	-0.069	1.64E-03
ENSG00000116793	PHTF1	0.051	1.64E-03
ENSG00000143799	PARP1	-0.038	1.64E-03
ENSG00000113369	ARRDC3	0.057	1.64E-03
ENSG00000171307	ZDHHC16	-0.035	1.64E-03
ENSG00000197798	FAM118B	0.043	1.64E-03
ENSG00000138190	EXOC6	0.053	1.65E-03
ENSG00000115368	WDR75	-0.042	1.66E-03
ENSG00000161999	JMJD8	-0.058	1.66E-03
ENSG00000163964	PIGX	0.051	1.66E-03
ENSG00000135407	AVIL	0.084	1.66E-03
ENSG00000166260	COX11	-0.044	1.66E-03
ENSG00000134324	LPIN1	-0.051	1.67E-03
ENSG00000215424	MCM3AP-AS1	-0.063	1.67E-03
ENSG00000126262	FFAR2	0.079	1.67E-03
ENSG00000121067	SPOP	0.024	1.68E-03
ENSG00000129347	KRI1	-0.047	1.69E-03
ENSG00000178075	GRAMD1C	0.104	1.69E-03
ENSG00000145734	BDP1	-0.036	1.69E-03
ENSG00000286065	SLFN12L	-0.055	1.69E-03
ENSG00000146425	DYNLT1	0.049	1.69E-03
ENSG00000133812	SBF2	0.056	1.69E-03
ENSG00000196923	PDLIM7	0.083	1.69E-03
ENSG00000206503	HLA-A	0.068	1.69E-03
ENSG00000211751	TRBC1	-0.060	1.70E-03
ENSG00000188322	SBK1	-0.082	1.70E-03
ENSG00000237441	RGL2	0.048	1.70E-03
ENSG00000085265	FCN1	0.058	1.71E-03
ENSG00000170854	RIOX2	-0.041	1.71E-03
ENSG00000104907	TRMT1	-0.053	1.71E-03
ENSG00000161048	NAPEPLD	-0.053	1.72E-03
ENSG00000163719	MTMR14	0.031	1.73E-03
ENSG00000164038	SLC9B2	-0.070	1.73E-03
ENSG00000181163	NPM1	-0.059	1.74E-03
ENSG00000261804	AC007342.4	0.101	1.74E-03
ENSG00000105835	NAMPT	0.077	1.74E-03
ENSG00000227345	PARG	-0.029	1.74E-03
ENSG00000114021	NIT2	-0.045	1.74E-03

ENSG00000090060	PAPOLA	0.029	1.74E-03
ENSG00000113240	CLK4	0.035	1.74E-03
ENSG00000277452	RN7SL473P	0.080	1.74E-03
ENSG00000130684	ZNF337	-0.037	1.74E-03
ENSG00000260947	AL356489.2	0.180	1.74E-03
ENSG00000163902	RPN1	0.034	1.74E-03
ENSG00000119655	NPC2	0.048	1.74E-03
ENSG00000135677	GNS	0.050	1.74E-03
ENSG00000084234	APLP2	0.048	1.76E-03
ENSG00000145703	IQGAP2	0.041	1.77E-03
ENSG00000145476	CYP4V2	-0.048	1.77E-03
ENSG00000105372	RPS19	-0.053	1.77E-03
ENSG00000188070	C11orf95	-0.084	1.78E-03
ENSG00000186265	BTLA	-0.069	1.78E-03
ENSG00000196092	PAX5	-0.131	1.78E-03
ENSG00000284930	AC005280.2	0.075	1.79E-03
ENSG00000065675	PRKCQ	-0.045	1.79E-03
ENSG00000112118	MCM3	-0.038	1.79E-03
ENSG00000143702	CEP170	0.038	1.79E-03
ENSG00000011376	LARS2	-0.044	1.79E-03
ENSG00000088179	PTPN4	-0.053	1.79E-03
ENSG00000100316	RPL3	-0.061	1.80E-03
ENSG00000165271	NOL6	-0.045	1.80E-03
ENSG00000165312	OTUD1	0.039	1.80E-03
ENSG00000088543	C3orf18	-0.073	1.80E-03
ENSG00000198034	RPS4X	-0.049	1.81E-03
ENSG00000115808	STRN	0.031	1.81E-03
ENSG00000123329	ARHGAP9	0.050	1.81E-03
ENSG00000229314	ORM1	0.183	1.83E-03
ENSG00000118263	KLF7	0.059	1.83E-03
ENSG00000074695	LMAN1	-0.043	1.84E-03
ENSG00000176871	WSB2	0.041	1.84E-03
ENSG00000135144	DTX1	-0.130	1.84E-03
ENSG00000244165	P2RY11	-0.076	1.85E-03
ENSG00000144199	FAHD2B	-0.077	1.85E-03
ENSG00000113384	GOLPH3	0.026	1.85E-03
ENSG00000021355	SERPINB1	0.048	1.85E-03
ENSG00000112096	SOD2	0.074	1.86E-03
ENSG00000231981	RPL7L1P12	-0.122	1.86E-03
ENSG00000134153	EMC7	0.034	1.86E-03
ENSG00000271646	IRF2-DT	0.053	1.86E-03
ENSG00000033170	FUT8	-0.050	1.86E-03
ENSG00000010219	DYRK4	-0.057	1.86E-03
ENSG00000109103	UNC119	0.044	1.87E-03
ENSG00000151466	SCLT1	0.049	1.87E-03
ENSG00000285725	AC004967.2	-0.053	1.87E-03
ENSG00000122085	MTERF4	-0.042	1.87E-03

ENSG0000008516	MMP25	0.099	1.87E-03
ENSG00000133488	SEC14L4	-0.150	1.87E-03
ENSG00000272941	AC083862.1	0.076	1.87E-03
ENSG00000175768	TOMM5	-0.075	1.88E-03
ENSG00000108773	KAT2A	-0.061	1.88E-03
ENSG00000284948	AC107959.4	0.073	1.88E-03
ENSG00000147894	C9orf72	0.050	1.88E-03
ENSG00000118518	RNF146	0.036	1.88E-03
ENSG00000085365	SCAMP1	0.033	1.89E-03
ENSG00000168096	ANKS3	-0.056	1.89E-03
ENSG00000284707	AC079781.5	-0.090	1.89E-03
ENSG00000126870	DYNC2I1	-0.070	1.89E-03
ENSG00000168887	C2orf68	0.032	1.89E-03
ENSG00000125900	SIRPD	0.072	1.90E-03
ENSG00000130638	ATXN10	-0.041	1.91E-03
ENSG00000183688	RFLNB	0.065	1.92E-03
ENSG00000278962	AC092645.1	-0.103	1.92E-03
ENSG00000188554	NBR1	0.032	1.93E-03
ENSG00000148660	CAMK2G	0.045	1.93E-03
ENSG00000059804	SLC2A3	0.067	1.93E-03
ENSG00000180953	ST20	0.069	1.93E-03
ENSG00000268471	MIR4453HG	-0.039	1.93E-03
ENSG00000230225	MTND5P14	0.107	1.93E-03
ENSG00000092200	RPGRIP1	0.095	1.94E-03
ENSG00000047644	WWC3	0.054	1.95E-03
ENSG00000174282	ZBTB4	-0.034	1.95E-03
ENSG00000173198	CYSLTR1	0.041	1.96E-03
ENSG00000128989	ARPP19	0.023	1.96E-03
ENSG00000086475	SEPHS1	-0.043	1.97E-03
ENSG00000184787	UBE2G2	-0.029	1.97E-03
ENSG00000118420	UBE3D	-0.055	1.97E-03
ENSG00000198707	CEP290	-0.052	1.98E-03
ENSG00000167106	FAM102A	-0.082	1.98E-03
ENSG00000101557	USP14	-0.051	1.98E-03
ENSG00000168610	STAT3	0.053	1.98E-03
ENSG00000123992	DNPEP	-0.046	1.98E-03
ENSG00000149636	DSN1	0.047	1.98E-03
ENSG00000126822	PLEKHG3	0.058	1.98E-03
ENSG00000054267	ARID4B	0.032	1.99E-03
ENSG00000101160	CTSZ	0.043	2.00E-03
ENSG00000185278	ZBTB37	0.026	2.00E-03
ENSG00000135632	SMYD5	-0.108	2.00E-03
ENSG00000197561	ELANE	0.196	2.00E-03
ENSG00000256235	SMIM3	0.060	2.01E-03
ENSG00000136925	TSTD2	-0.040	2.01E-03
ENSG00000172936	MYD88	0.055	2.01E-03
ENSG00000104972	LILRB1	0.076	2.01E-03

ENSG00000123159	GIPC1	-0.066	2.01E-03
ENSG00000188938	FAM120AOS	0.029	2.02E-03
ENSG00000163002	NUP35	-0.051	2.04E-03
ENSG00000197579	TOPORS	0.051	2.04E-03
ENSG00000138413	IDH1	0.040	2.04E-03
ENSG00000175105	ZNF654	0.041	2.04E-03
ENSG00000180787	ZFP3	-0.046	2.05E-03
ENSG00000277586	NEFL	-0.144	2.05E-03
ENSG00000166477	LEO1	-0.037	2.05E-03
ENSG00000156735	BAG4	0.031	2.05E-03
ENSG00000171824	EXOSC10	-0.030	2.07E-03
ENSG00000174206	C12orf66	-0.053	2.07E-03
ENSG00000166145	SPINT1	0.069	2.07E-03
ENSG00000134830	C5AR2	0.066	2.08E-03
ENSG00000204152	TIMM23B	-0.047	2.08E-03
ENSG00000074696	HACD3	-0.042	2.12E-03
ENSG00000204020	LIPN	0.095	2.12E-03
ENSG00000163001	CFAP36	-0.067	2.12E-03
ENSG00000141384	TAF4B	-0.049	2.13E-03
ENSG00000285581	AC091196.1	-0.056	2.13E-03
ENSG00000064933	PMS1	-0.050	2.14E-03
ENSG00000131323	TRAF3	-0.042	2.14E-03
ENSG00000062725	APPBP2	0.040	2.14E-03
ENSG00000119801	YPEL5	0.040	2.14E-03
ENSG00000196778	OR52K1	0.106	2.14E-03
ENSG00000261468	AC096921.2	0.041	2.14E-03
ENSG00000073910	FRY	0.060	2.14E-03
ENSG00000125510	OPRL1	0.063	2.15E-03
ENSG00000152465	NMT2	-0.053	2.16E-03
ENSG00000144749	LRIG1	-0.055	2.16E-03
ENSG00000071794	HLTF	-0.053	2.17E-03
ENSG00000119121	TRPM6	0.091	2.18E-03
ENSG00000109323	MANBA	0.044	2.19E-03
ENSG00000119723	COQ6	-0.040	2.20E-03
ENSG00000198648	STK39	-0.054	2.21E-03
ENSG00000198113	TOR4A	0.049	2.22E-03
ENSG00000118508	RAB32	0.054	2.22E-03
ENSG00000278434	AC023830.3	-0.082	2.22E-03
ENSG00000269934	AL353593.1	-0.100	2.23E-03
ENSG00000139193	CD27	-0.069	2.23E-03
ENSG00000113838	TBCCD1	-0.039	2.23E-03
ENSG00000166133	RPUSD2	-0.066	2.23E-03
ENSG00000171791	BCL2	-0.050	2.24E-03
ENSG00000086102	NFX1	-0.030	2.24E-03
ENSG00000216937	CCDC7	-0.076	2.26E-03
ENSG00000168374	ARF4	0.035	2.26E-03
ENSG00000280184	AL023806.3	0.051	2.26E-03

ENSG00000176407	KCMF1	0.034	2.26E-03
ENSG00000086544	ITPKC	0.043	2.26E-03
ENSG00000249863	AC021106.1	0.077	2.27E-03
ENSG00000128694	OSGEPL1	-0.052	2.27E-03
ENSG00000169991	IFFO2	-0.047	2.27E-03
ENSG00000065413	ANKRD44	0.031	2.28E-03
ENSG00000080493	SLC4A4	-0.102	2.28E-03
ENSG00000100985	MMP9	0.132	2.28E-03
ENSG00000136104	RNASEH2B	-0.036	2.28E-03
ENSG00000132300	PTCD3	-0.036	2.29E-03
ENSG00000167232	ZNF91	-0.057	2.31E-03
ENSG00000055044	NOP58	-0.052	2.31E-03
ENSG00000204525	HLA-C	0.055	2.31E-03
ENSG00000267672	AC010632.2	-0.097	2.32E-03
ENSG00000174501	ANKRD36C	-0.046	2.33E-03
ENSG00000172673	THEMIS	-0.063	2.33E-03
ENSG00000164674	SYTL3	0.049	2.33E-03
ENSG00000145293	ENOPH1	-0.046	2.34E-03
ENSG00000163605	PPP4R2	0.039	2.35E-03
ENSG00000108443	RPS6KB1	-0.028	2.35E-03
ENSG00000139218	SCAF11	0.028	2.35E-03
ENSG00000113575	PPP2CA	0.030	2.36E-03
ENSG00000160593	JAML	0.050	2.37E-03
ENSG00000078319	PMS2P1	-0.054	2.37E-03
ENSG00000188636	RTL6	-0.050	2.37E-03
ENSG00000124731	TREM1	0.081	2.38E-03
ENSG00000138829	FBN2	0.103	2.38E-03
ENSG00000188227	ZNF793	-0.076	2.39E-03
ENSG00000139531	SUOX	0.072	2.39E-03
ENSG00000065427	KARS1	-0.029	2.39E-03
ENSG00000179299	NSUN7	0.112	2.39E-03
ENSG00000146285	SCML4	-0.042	2.39E-03
ENSG00000185745	IFIT1	0.179	2.39E-03
ENSG00000005007	UPF1	0.047	2.39E-03
ENSG00000204054	LINC00963	0.058	2.40E-03
ENSG00000119862	LGALS1	0.087	2.40E-03
ENSG00000177173	NAP1L4P1	0.049	2.42E-03
ENSG00000179240	GVQW3	-0.059	2.42E-03
ENSG00000110077	MS4A6A	0.059	2.43E-03
ENSG00000008086	CDKL5	0.062	2.43E-03
ENSG00000172349	IL16	0.027	2.44E-03
ENSG00000244482	LILRA6	0.099	2.45E-03
ENSG00000287255	AC007877.1	0.116	2.45E-03
ENSG00000165646	SLC18A2	0.094	2.45E-03
ENSG00000179639	FCER1A	0.115	2.45E-03
ENSG00000160746	ANO10	0.058	2.45E-03
ENSG00000101096	NFATC2	-0.061	2.45E-03

ENSG00000075420	FNDC3B	0.051	2.45E-03
ENSG00000182134	TDRKH	-0.066	2.46E-03
ENSG00000227507	LTB	-0.049	2.46E-03
ENSG00000181638	ZFP41	-0.082	2.46E-03
ENSG00000152127	MGAT5	-0.038	2.46E-03
ENSG00000115875	SRSF7	-0.033	2.46E-03
ENSG00000176225	RTTN	-0.047	2.47E-03
ENSG00000175489	LRRC25	0.060	2.47E-03
ENSG00000235961	PNMA6A	0.211	2.48E-03
ENSG00000136143	SUCLA2	-0.042	2.48E-03
ENSG00000249667	LINC01259	-0.107	2.48E-03
ENSG00000203814	H2BC18	0.052	2.49E-03
ENSG00000162711	NLRP3	0.053	2.50E-03
ENSG00000136270	TBRG4	-0.038	2.50E-03
ENSG00000119650	IFT43	-0.060	2.50E-03
ENSG00000150768	DLAT	-0.035	2.50E-03
ENSG00000132510	KDM6B	0.069	2.52E-03
ENSG00000273173	SNURF	-0.104	2.52E-03
ENSG00000171051	FPR1	0.077	2.52E-03
ENSG00000155926	SLA	0.044	2.52E-03
ENSG00000186468	RPS23	-0.071	2.53E-03
ENSG00000263843	AC022211.2	-0.090	2.53E-03
ENSG00000162645	GBP2	0.057	2.53E-03
ENSG00000125462	MIR9-1HG	-0.168	2.53E-03
ENSG00000141562	NARF	0.046	2.54E-03
ENSG00000130881	LRP3	0.121	2.56E-03
ENSG00000084676	NCOA1	0.046	2.56E-03
ENSG00000106610	STAG3L4	-0.040	2.56E-03
ENSG00000160602	NEK8	-0.094	2.57E-03
ENSG00000274922	AL139384.1	0.050	2.57E-03
ENSG00000164610	RP9	-0.053	2.58E-03
ENSG00000166197	NOLC1	-0.038	2.58E-03
ENSG00000135956	TMEM127	0.053	2.58E-03
ENSG00000178295	GEN1	-0.077	2.58E-03
ENSG00000171604	CXXC5	-0.059	2.58E-03
ENSG00000245954	LINC02273	-0.132	2.59E-03
ENSG00000204954	C12orf73	-0.073	2.59E-03
ENSG00000154358	OBSCN	-0.087	2.60E-03
ENSG00000135749	PCNX2	-0.056	2.60E-03
ENSG00000137497	NUMA1	-0.030	2.60E-03
ENSG00000188396	TCTEX1D4	0.123	2.60E-03
ENSG00000155508	CNOT8	0.022	2.60E-03
ENSG00000172215	CXCR6	-0.104	2.60E-03
ENSG00000010404	IDS	0.055	2.60E-03
ENSG00000166949	SMAD3	-0.064	2.60E-03
ENSG00000260083	MIR762HG	-0.070	2.61E-03
ENSG00000111962	UST	-0.077	2.61E-03

ENSG00000163534	FCRL1	-0.113	2.61E-03
ENSG00000197555	SIPA1L1	0.054	2.61E-03
ENSG00000266127	ZNF415P1	0.081	2.61E-03
ENSG00000086712	TXLNG	-0.035	2.61E-03
ENSG00000105851	PIK3CG	0.036	2.63E-03
ENSG00000094916	CBX5	-0.049	2.63E-03
ENSG00000147316	MCPH1	-0.037	2.64E-03
ENSG00000122188	LAX1	-0.051	2.64E-03
ENSG00000144218	AFF3	-0.106	2.64E-03
ENSG00000269404	SPIB	-0.099	2.64E-03
ENSG00000100403	ZC3H7B	-0.033	2.65E-03
ENSG00000103091	WDR59	-0.047	2.65E-03
ENSG00000099246	RAB18	0.038	2.65E-03
ENSG00000073008	PVR	0.059	2.65E-03
ENSG00000151233	GXYLT1	0.040	2.66E-03
ENSG00000277791	PSMB3	0.043	2.69E-03
ENSG00000109680	TBC1D19	-0.062	2.69E-03
ENSG00000070190	DAPP1	0.044	2.69E-03
ENSG00000122507	BBS9	-0.046	2.71E-03
ENSG00000185129	PURA	-0.037	2.71E-03
ENSG00000280365	AC021766.1	-0.142	2.71E-03
ENSG00000162415	ZSWIM5	-0.084	2.71E-03
ENSG00000126970	ZC4H2	-0.068	2.72E-03
ENSG00000139211	AMIGO2	-0.049	2.72E-03
ENSG00000091039	OSBPL8	0.046	2.73E-03
ENSG00000198182	ZNF607	-0.071	2.73E-03
ENSG00000198851	CD3E	-0.067	2.74E-03
ENSG00000142089	IFITM3	0.203	2.74E-03
ENSG00000144741	SLC25A26	-0.049	2.74E-03
ENSG00000078124	ACER3	0.043	2.74E-03
ENSG00000145781	COMMD10	-0.037	2.75E-03
ENSG00000226648	PLCG1-AS1	-0.130	2.75E-03
ENSG00000286010	AC108925.1	-0.136	2.75E-03
ENSG00000244560	AC004890.2	-0.090	2.75E-03
ENSG00000123106	CCDC91	-0.050	2.75E-03
ENSG00000170468	RIOX1	-0.037	2.75E-03
ENSG00000119686	FLVCR2	0.069	2.75E-03
ENSG00000167552	TUBA1A	0.060	2.75E-03
ENSG00000086288	NME8	0.102	2.76E-03
ENSG00000142634	EFHD2	0.046	2.77E-03
ENSG00000185669	SNAI3	0.051	2.77E-03
ENSG00000197134	ZNF257	-0.096	2.78E-03
ENSG00000170776	AKAP13	0.035	2.78E-03
ENSG00000057935	MTA3	-0.061	2.79E-03
ENSG00000125772	GPCPD1	0.045	2.79E-03
ENSG00000117139	KDM5B	0.044	2.79E-03
ENSG00000197756	RPL37A	-0.047	2.79E-03

ENSG00000152492	CCDC50	-0.055	2.79E-03
ENSG00000177272	KCNA3	-0.044	2.82E-03
ENSG00000147789	ZNF7	-0.032	2.83E-03
ENSG00000273033	LINC02035	0.061	2.83E-03
ENSG00000132153	DHX30	-0.038	2.83E-03
ENSG00000172932	ANKRD13D	0.046	2.83E-03
ENSG00000165476	REEP3	0.038	2.84E-03
ENSG00000170832	USP32	0.052	2.84E-03
ENSG00000146414	SHPRH	-0.033	2.84E-03
ENSG00000171659	GPR34	0.098	2.84E-03
ENSG00000025708	TYMP	0.069	2.84E-03
ENSG00000058799	YIPF1	0.040	2.85E-03
ENSG00000105248	YJU2	-0.043	2.85E-03
ENSG00000197632	SERPINB2	0.103	2.86E-03
ENSG00000103037	SETD6	-0.053	2.86E-03
ENSG00000068438	FTSJ1	-0.039	2.87E-03
ENSG00000167065	DUSP18	0.047	2.87E-03
ENSG00000091106	NLRC4	0.056	2.87E-03
ENSG00000232119	MCTS1	-0.056	2.88E-03
ENSG00000151882	CCL28	-0.061	2.88E-03
ENSG00000160712	IL6R	0.053	2.89E-03
ENSG00000115594	IL1R1	0.118	2.89E-03
ENSG00000112941	TENT4A	-0.047	2.89E-03
ENSG00000093000	NUP50	0.036	2.89E-03
ENSG00000143067	ZNF697	0.064	2.89E-03
ENSG00000160703	NLRX1	0.062	2.89E-03
ENSG00000198695	MT-ND6	0.179	2.89E-03
ENSG00000116771	AGMAT	-0.066	2.89E-03
ENSG00000132823	OSER1	0.041	2.90E-03
ENSG00000076662	ICAM3	0.058	2.92E-03
ENSG00000124357	NAGK	0.049	2.92E-03
ENSG00000132256	TRIM5	0.047	2.93E-03
ENSG00000255423	EBLN2	0.037	2.93E-03
ENSG00000071189	SNX13	0.031	2.93E-03
ENSG00000015133	CCDC88C	-0.040	2.94E-03
ENSG00000043143	JADE2	-0.039	2.94E-03
ENSG00000168874	ATOH8	0.215	2.94E-03
ENSG00000250995	TMEM30BP1	0.104	2.95E-03
ENSG00000123136	DDX39A	-0.036	2.95E-03
ENSG00000237711	MTCO3P11	0.083	2.95E-03
ENSG00000147180	ZNF711	-0.100	2.95E-03
ENSG00000163219	ARHGAP25	0.034	2.97E-03
ENSG00000251013	GAPDHP62	-0.144	2.97E-03
ENSG00000271918	AC034236.2	-0.070	2.97E-03
ENSG00000081087	OSTM1	0.043	2.98E-03
ENSG00000245680	ZNF585B	-0.049	2.98E-03
ENSG00000131389	SLC6A6	0.062	2.98E-03

ENSG00000035720	STAP1	-0.088	2.98E-03
ENSG00000172965	MIR4435-2HG	0.054	2.98E-03
ENSG00000286330	AL353660.1	-0.094	2.99E-03
ENSG00000174132	FAM174A	0.059	2.99E-03
ENSG00000204131	NHSL2	0.064	3.00E-03
ENSG00000184441	AP001062.1	-0.075	3.00E-03
ENSG00000164323	CFAP97	-0.042	3.00E-03
ENSG00000197063	MAFG	0.053	3.00E-03
ENSG00000180549	FUT7	0.067	3.00E-03
ENSG00000133246	PRAM1	0.076	3.00E-03
ENSG00000067113	PLPP1	-0.073	3.01E-03
ENSG00000106636	YKT6	0.026	3.01E-03
ENSG00000094841	UPRT	-0.038	3.02E-03
ENSG00000164924	YWHAZ	0.026	3.03E-03
ENSG00000102699	PARP4	0.034	3.03E-03
ENSG00000218565	AL592429.1	-0.174	3.04E-03
ENSG00000230084	AC006059.1	0.091	3.07E-03
ENSG00000014138	POLA2	-0.062	3.07E-03
ENSG00000081052	COL4A4	-0.139	3.07E-03
ENSG00000105202	FBL	-0.050	3.07E-03
ENSG00000273348	AC027449.1	-0.136	3.08E-03
ENSG00000197951	ZNF71	-0.050	3.09E-03
ENSG00000143549	TPM3	0.030	3.09E-03
ENSG00000151135	TMEM263	-0.048	3.09E-03
ENSG00000170296	GABARAP	0.046	3.10E-03
ENSG00000120800	UTP20	-0.052	3.10E-03
ENSG00000143390	RFX5	-0.034	3.10E-03
ENSG00000187912	CLEC17A	-0.108	3.13E-03
ENSG00000181852	RNF41	0.026	3.14E-03
ENSG00000139428	MMAB	-0.068	3.14E-03
ENSG00000120458	MSANTD2	-0.044	3.14E-03
ENSG00000256720	BTG1P1	-0.104	3.14E-03
ENSG00000066322	ELOVL1	0.031	3.14E-03
ENSG00000128159	TUBGCP6	-0.037	3.14E-03
ENSG00000130255	RPL36	-0.055	3.15E-03
ENSG00000196872	CRACDL	0.124	3.15E-03
ENSG00000137955	RABGGTB	-0.038	3.15E-03
ENSG00000184678	H2BC21	0.044	3.15E-03
ENSG00000198814	GK	0.067	3.16E-03
ENSG00000287733	AC083862.2	0.099	3.17E-03
ENSG00000197208	SLC22A4	0.072	3.17E-03
ENSG00000204387	SNHG32	-0.056	3.18E-03
ENSG00000123552	USP45	-0.059	3.18E-03
ENSG00000132600	PRMT7	-0.048	3.18E-03
ENSG00000157303	SUSD3	-0.050	3.18E-03
ENSG00000179542	SLITRK4	0.077	3.18E-03
ENSG00000118496	FBXO30	0.034	3.18E-03

ENSG00000150681	RGS18	0.069	3.19E-03
ENSG00000232869	TRBV29-1	-0.081	3.19E-03
ENSG00000130779	CLIP1	0.031	3.20E-03
ENSG00000084733	RAB10	0.031	3.20E-03
ENSG00000224137	LINC01857	-0.168	3.20E-03
ENSG00000142541	RPL13A	-0.060	3.20E-03
ENSG00000225889	AC012368.1	0.071	3.20E-03
ENSG00000262714	AC007342.5	0.104	3.21E-03
ENSG00000204482	LST1	0.053	3.21E-03
ENSG00000100284	TOM1	0.049	3.21E-03
ENSG00000197852	INKA2	0.070	3.22E-03
ENSG00000147905	ZCCHC7	-0.040	3.22E-03
ENSG00000268240	AC123912.2	0.152	3.22E-03
ENSG00000142208	AKT1	0.041	3.23E-03
ENSG00000120656	TAF12	0.035	3.24E-03
ENSG00000173757	STAT5B	0.045	3.24E-03
ENSG00000154928	EPHB1	0.073	3.24E-03
ENSG00000136717	BIN1	-0.048	3.25E-03
ENSG00000211776	TRAV2	-0.103	3.25E-03
ENSG00000070444	MNT	0.057	3.26E-03
ENSG00000141560	FN3KRP	-0.043	3.27E-03
ENSG00000154529	CNTNAP3B	0.158	3.27E-03
ENSG00000141298	SSH2	0.058	3.28E-03
ENSG00000108932	SLC16A6	0.045	3.28E-03
ENSG00000187116	LILRA5	0.076	3.31E-03
ENSG00000145819	ARHGAP26	0.066	3.31E-03
ENSG00000002834	LASP1	0.039	3.31E-03
ENSG00000174695	TMEM167A	0.047	3.32E-03
ENSG00000168394	TAP1	0.050	3.32E-03
ENSG00000151651	ADAM8	0.058	3.32E-03
ENSG00000101361	NOP56	-0.034	3.32E-03
ENSG00000180871	CXCR2	0.081	3.33E-03
ENSG00000013523	ANGEL1	-0.047	3.35E-03
ENSG00000152642	GPD1L	-0.035	3.35E-03
ENSG00000225733	FGD5-AS1	0.026	3.35E-03
ENSG00000163947	ARHGEF3	-0.030	3.35E-03
ENSG00000198755	RPL10A	-0.055	3.35E-03
ENSG00000010072	SPRTN	0.032	3.36E-03
ENSG00000183161	FANCF	-0.042	3.37E-03
ENSG00000155561	NUP205	-0.035	3.37E-03
ENSG00000108591	DRG2	-0.038	3.38E-03
ENSG00000167703	SLC43A2	0.062	3.38E-03
ENSG00000114779	ABHD14B	-0.043	3.38E-03
ENSG00000160803	UBQLN4	-0.063	3.38E-03
ENSG00000184730	APOBR	0.067	3.38E-03
ENSG00000136048	DRAM1	0.064	3.38E-03
ENSG00000160961	ZNF333	0.039	3.39E-03

ENSG00000135709	KIAA0513	0.051	3.39E-03
ENSG00000004139	SARM1	-0.068	3.39E-03
ENSG00000258818	RNASE4	0.177	3.40E-03
ENSG00000154930	ACSS1	-0.033	3.41E-03
ENSG00000251669	FAM86EP	-0.107	3.43E-03
ENSG00000135185	TMEM243	-0.038	3.45E-03
ENSG00000177105	RHOG	0.054	3.47E-03
ENSG00000225648	SBDSP1	-0.061	3.47E-03
ENSG00000211777	TRAV3	-0.094	3.48E-03
ENSG00000144659	SLC25A38	-0.066	3.48E-03
ENSG00000153093	ACOXL	0.152	3.48E-03
ENSG00000172794	RAB37	0.039	3.48E-03
ENSG00000213719	CLIC1	0.046	3.48E-03
ENSG00000133056	PIK3C2B	-0.089	3.48E-03
ENSG00000173369	C1QB	-0.170	3.48E-03
ENSG00000027075	PRKCH	-0.043	3.48E-03
ENSG00000141385	AFG3L2	-0.041	3.49E-03
ENSG00000013503	POLR3B	-0.040	3.49E-03
ENSG00000179144	GIMAP7	-0.057	3.49E-03
ENSG00000111859	NEDD9	0.059	3.50E-03
ENSG00000154229	PRKCA	-0.068	3.51E-03
ENSG00000106628	POLD2	-0.055	3.51E-03
ENSG00000116729	WLS	0.103	3.51E-03
ENSG00000132680	KHDC4	-0.028	3.51E-03
ENSG00000274008	Metazoa_SRP	0.104	3.52E-03
ENSG00000279500	AC108704.2	0.052	3.52E-03
ENSG00000254363	AC011379.2	-0.132	3.52E-03
ENSG00000270277	AC009948.1	0.056	3.52E-03
ENSG00000149573	MPZL2	0.070	3.53E-03
ENSG00000118596	SLC16A7	-0.043	3.53E-03
ENSG00000118971	CCND2	-0.044	3.53E-03
ENSG00000124228	DDX27	-0.030	3.53E-03
ENSG00000188042	ARL4C	-0.043	3.53E-03
ENSG00000131669	NINJ1	0.065	3.53E-03
ENSG00000177885	GRB2	0.041	3.54E-03
ENSG00000166685	COG1	-0.035	3.55E-03
ENSG00000265666	RARA-AS1	0.069	3.55E-03
ENSG00000187510	PLEKHG7	-0.155	3.56E-03
ENSG00000147231	RADX	-0.083	3.56E-03
ENSG00000211787	TRAV8-3	-0.079	3.57E-03
ENSG00000109016	DHRS7B	0.038	3.58E-03
ENSG00000223546	LINC00630	-0.055	3.58E-03
ENSG00000254469	AP002495.1	-0.044	3.60E-03
ENSG00000099725	PRKY	-0.056	3.61E-03
ENSG00000118960	HS1BP3	0.037	3.62E-03
ENSG00000182504	CEP97	0.046	3.62E-03
ENSG00000143499	SMYD2	-0.045	3.64E-03

ENSG00000143437	ARNT	0.032	3.65E-03
ENSG00000122862	SRGN	0.066	3.66E-03
ENSG00000287839	AL353807.5	0.050	3.66E-03
ENSG00000163161	ERCC3	-0.029	3.69E-03
ENSG00000008988	RPS20	-0.070	3.70E-03
ENSG00000249662	LINC02218	0.095	3.72E-03
ENSG00000134970	TMED7	0.031	3.72E-03
ENSG00000100105	PATZ1	-0.034	3.72E-03
ENSG00000166664	CHRFAM7A	0.175	3.72E-03
ENSG00000163935	SFMBT1	-0.056	3.73E-03
ENSG00000136816	TOR1B	0.053	3.73E-03
ENSG00000167699	GLOD4	-0.033	3.73E-03
ENSG00000131067	GGT7	-0.072	3.73E-03
ENSG00000197965	MPZL1	0.080	3.73E-03
ENSG00000166734	GOLM2	0.030	3.75E-03
ENSG00000113013	HSPA9	-0.034	3.75E-03
ENSG00000086548	CEACAM6	0.187	3.75E-03
ENSG00000171649	ZIK1	-0.059	3.75E-03
ENSG00000019485	PRDM11	-0.080	3.78E-03
ENSG00000205476	CCDC85C	-0.106	3.78E-03
ENSG00000232479	KRT8P52	-0.079	3.79E-03
ENSG00000148842	CNNM2	-0.062	3.79E-03
ENSG00000211689	TRGC1	-0.085	3.79E-03
ENSG00000198890	PRMT6	-0.049	3.79E-03
ENSG00000196950	SLC39A10	-0.048	3.80E-03
ENSG00000100365	NCF4	0.065	3.80E-03
ENSG00000084072	PPIE	-0.039	3.81E-03
ENSG00000135506	OS9	0.034	3.82E-03
ENSG00000183723	CMTM4	0.063	3.82E-03
ENSG00000100439	ABHD4	0.054	3.85E-03
ENSG00000176845	METRNL	0.054	3.85E-03
ENSG00000172175	MALT1	-0.032	3.85E-03
ENSG00000132254	ARFIP2	-0.030	3.87E-03
ENSG00000204475	NCR3	-0.077	3.87E-03
ENSG00000125484	GTF3C4	-0.035	3.91E-03
ENSG00000111641	NOP2	-0.046	3.92E-03
ENSG00000135414	GDF11	-0.052	3.92E-03
ENSG00000151116	UEVLD	0.038	3.92E-03
ENSG00000227268	KLLN	0.070	3.95E-03
ENSG00000154027	AK5	-0.113	3.95E-03
ENSG00000213402	PTPRCAP	-0.058	3.96E-03
ENSG00000149480	MTA2	-0.028	3.98E-03
ENSG00000105011	ASF1B	0.080	3.99E-03
ENSG00000178605	GTPBP6	-0.043	4.02E-03
ENSG00000214530	STARD10	0.080	4.03E-03
ENSG00000177156	TALDO1	0.063	4.03E-03
ENSG00000128604	IRF5	0.046	4.03E-03

ENSG00000141447	OSBPL1A	0.067	4.04E-03
ENSG00000112561	TFEB	0.046	4.04E-03
ENSG00000267074	AC015911.3	-0.071	4.05E-03
ENSG00000216490	IFI30	0.054	4.05E-03
ENSG00000111802	TDP2	0.041	4.05E-03
ENSG00000101400	SNTA1	-0.097	4.06E-03
ENSG00000132824	SERINC3	0.034	4.09E-03
ENSG00000135535	CD164	0.028	4.09E-03
ENSG00000109787	KLF3	0.026	4.12E-03
ENSG00000239306	RBM14	-0.039	4.12E-03
ENSG00000042980	ADAM28	-0.072	4.12E-03
ENSG00000072952	IRAG1	0.078	4.12E-03
ENSG00000180488	MIGA1	-0.032	4.12E-03
ENSG00000204514	ZNF814	-0.052	4.13E-03
ENSG00000237702	TRBV3-1	-0.097	4.13E-03
ENSG00000231205	ZNF826P	-0.094	4.14E-03
ENSG00000125970	RALY	0.029	4.16E-03
ENSG00000286030	AC015911.9	-0.055	4.16E-03
ENSG00000162511	LAPTM5	0.038	4.17E-03
ENSG00000110446	SLC15A3	0.050	4.18E-03
ENSG00000196547	MAN2A2	0.050	4.19E-03
ENSG00000263753	LINC00667	-0.044	4.19E-03
ENSG00000196937	FAM3C	-0.059	4.19E-03
ENSG00000158773	USF1	0.031	4.23E-03
ENSG00000116489	CAPZA1	0.040	4.23E-03
ENSG00000224025	AL353616.1	0.155	4.23E-03
ENSG00000137962	ARHGAP29	0.113	4.24E-03
ENSG00000170946	DNAJC24	-0.042	4.24E-03
ENSG00000183735	TBK1	0.032	4.24E-03
ENSG00000144713	RPL32	-0.054	4.24E-03
ENSG00000130429	ARPC1B	0.036	4.24E-03
ENSG00000070785	EIF2B3	-0.044	4.24E-03
ENSG00000198919	DZIP3	-0.065	4.24E-03
ENSG00000165521	EML5	-0.071	4.25E-03
ENSG00000160551	TAOK1	0.030	4.28E-03
ENSG00000144445	KANSL1L	0.035	4.29E-03
ENSG00000140932	CMTM2	0.081	4.30E-03
ENSG00000157916	RER1	0.025	4.32E-03
ENSG00000240809	CAP1P1	0.065	4.33E-03
ENSG00000069943	PIGB	0.051	4.34E-03
ENSG00000076043	REXO2	-0.043	4.38E-03
ENSG00000149179	C11orf49	-0.058	4.38E-03
ENSG00000076248	UNG	-0.049	4.39E-03
ENSG00000105483	CARD8	0.036	4.39E-03
ENSG00000184574	LPAR5	-0.056	4.40E-03
ENSG00000203879	GDI1	0.032	4.40E-03
ENSG00000028203	VEZT	-0.035	4.41E-03

ENSG00000159433	STARD9	-0.076	4.42E-03
ENSG00000110057	UNC93B1	0.053	4.42E-03
ENSG00000183784	DOCK8-AS1	0.078	4.44E-03
ENSG00000167483	NIBAN3	-0.093	4.45E-03
ENSG00000160214	RRP1	-0.057	4.45E-03
ENSG00000110315	RNF141	0.045	4.45E-03
ENSG00000000938	FGR	0.042	4.45E-03
ENSG00000175931	UBE2O	-0.113	4.46E-03
ENSG00000270141	TERC	-0.208	4.46E-03
ENSG00000140688	RUSF1	-0.053	4.47E-03
ENSG00000167996	FTH1	0.061	4.47E-03
ENSG00000163104	SMARCAD1	-0.043	4.48E-03
ENSG00000169288	MRPL1	-0.072	4.49E-03
ENSG00000100099	HPS4	-0.039	4.50E-03
ENSG00000197362	ZNF786	-0.036	4.50E-03
ENSG00000164916	FOXK1	-0.047	4.50E-03
ENSG00000183309	ZNF623	-0.024	4.50E-03
ENSG00000286796	AC010883.2	0.079	4.50E-03
ENSG00000183444	OR7E38P	-0.054	4.50E-03
ENSG00000070214	SLC44A1	0.033	4.50E-03
ENSG00000006756	ARSD	0.044	4.50E-03
ENSG00000185404	SP140L	-0.041	4.50E-03
ENSG00000178814	OPLAH	0.110	4.50E-03
ENSG00000253485	PCDHGA5	-0.123	4.52E-03
ENSG00000185361	TNFAIP8L1	-0.038	4.52E-03
ENSG00000051620	HEBP2	0.051	4.54E-03
ENSG00000262766	AC135050.5	0.066	4.56E-03
ENSG00000145414	NAF1	-0.053	4.56E-03
ENSG00000114735	HEMK1	-0.038	4.57E-03
ENSG00000283445	AL136985.3	0.133	4.59E-03
ENSG00000104814	MAP4K1	-0.059	4.61E-03
ENSG00000128011	LRFN1	0.072	4.62E-03
ENSG00000197321	SVIL	0.064	4.63E-03
ENSG00000144580	CNOT9	-0.030	4.65E-03
ENSG00000099284	MACROH2A2	-0.082	4.66E-03
ENSG00000214226	C17orf67	-0.067	4.66E-03
ENSG00000085514	PILRA	0.058	4.66E-03
ENSG00000163596	ICA1L	-0.103	4.67E-03
ENSG00000070831	CDC42	0.035	4.67E-03
ENSG00000196696	PDXDC2P-NPIP14P	-0.060	4.67E-03
ENSG00000111640	GAPDH	0.041	4.67E-03
ENSG00000109920	FNBP4	-0.033	4.69E-03
ENSG00000168016	TRANK1	0.046	4.69E-03
ENSG00000168672	LRATD2	-0.061	4.70E-03
ENSG00000258659	TRIM34	0.036	4.70E-03
ENSG00000236088	COX10-AS1	-0.044	4.70E-03
ENSG00000113742	CPEB4	0.049	4.70E-03

ENSG00000115956	PLEK	0.043	4.70E-03
ENSG00000100554	ATP6V1D	0.036	4.70E-03
ENSG00000270878	GCATP1	-0.067	4.70E-03
ENSG00000108100	CCNY	0.035	4.70E-03
ENSG00000197417	SHPK	-0.036	4.70E-03
ENSG00000211899	IGHM	-0.104	4.70E-03
ENSG00000259962	AC007342.2	0.126	4.71E-03
ENSG00000115561	CHMP3	0.028	4.71E-03
ENSG00000173120	KDM2A	0.036	4.72E-03
ENSG00000135316	SYNCRIP	-0.022	4.73E-03
ENSG00000148143	ZNF462	-0.229	4.75E-03
ENSG00000057657	PRDM1	0.042	4.75E-03
ENSG00000005381	MPO	0.139	4.75E-03
ENSG00000168710	AHCYL1	0.024	4.75E-03
ENSG00000137101	CD72	-0.089	4.75E-03
ENSG00000157557	ETS2	0.054	4.76E-03
ENSG00000167470	MIDN	0.061	4.76E-03
ENSG00000279329	AC020910.6	-0.080	4.77E-03
ENSG00000181035	SLC25A42	-0.054	4.77E-03
ENSG00000160211	G6PD	0.056	4.78E-03
ENSG00000241106	HLA-DOB	-0.091	4.79E-03
ENSG00000269911	FAM226B	-0.098	4.79E-03
ENSG00000064102	INTS13	-0.044	4.79E-03
ENSG00000181444	ZNF467	0.069	4.81E-03
ENSG00000261008	LINC01572	-0.081	4.81E-03
ENSG00000100413	POLR3H	-0.042	4.81E-03
ENSG00000144935	TRPC1	-0.085	4.81E-03
ENSG00000186166	CENATAC	-0.033	4.81E-03
ENSG00000263528	IKBKE	-0.041	4.83E-03
ENSG00000179409	GEMIN4	-0.039	4.83E-03
ENSG00000155254	MARVELD1	0.081	4.83E-03
ENSG00000197312	DDI2	-0.034	4.83E-03
ENSG00000178104	PDE4DIP	-0.040	4.84E-03
ENSG00000255776	VDAC2P2	-0.106	4.84E-03
ENSG00000136518	ACTL6A	-0.043	4.84E-03
ENSG00000078369	GNB1	0.027	4.84E-03
ENSG00000248712	CCDC153	0.095	4.84E-03
ENSG00000196810	CTBP1-DT	-0.052	4.86E-03
ENSG00000140403	DNAJA4	-0.076	4.87E-03
ENSG00000224950	AL390066.1	0.057	4.87E-03
ENSG00000272037	AP002907.1	0.074	4.88E-03
ENSG00000231074	HCG18	-0.035	4.88E-03
ENSG00000186074	CD300LF	0.045	4.88E-03
ENSG00000145241	CENPC	-0.036	4.90E-03
ENSG00000283597	FAM169B	0.137	4.90E-03
ENSG00000173715	C11orf80	-0.064	4.91E-03
ENSG00000168758	SEMA4C	-0.054	4.92E-03

ENSG00000169692	AGPAT2	0.048	4.93E-03
ENSG00000197296	FITM2	-0.046	4.93E-03
ENSG00000186017	ZNF566	-0.059	4.94E-03
ENSG00000027847	B4GALT7	-0.050	4.94E-03
ENSG00000168297	PXK	0.040	4.94E-03
ENSG00000247092	SNHG10	-0.052	4.96E-03
ENSG00000232995	RGS5	-0.056	4.96E-03
ENSG00000126759	CFP	0.054	4.96E-03
ENSG00000143224	PPOX	-0.044	4.97E-03
ENSG00000143570	SLC39A1	0.034	4.98E-03
ENSG00000147642	SYBU	-0.185	4.99E-03
ENSG00000278864	AC055811.4	-0.064	5.00E-03
ENSG00000257335	MGAM	0.090	5.01E-03
ENSG00000123240	OPTN	-0.067	5.01E-03
ENSG00000257511	AC084824.1	-0.074	5.01E-03
ENSG00000124198	ARFGEF2	-0.026	5.02E-03
ENSG00000133256	PDE6B	-0.090	5.02E-03
ENSG00000169193	CCDC126	0.048	5.02E-03
ENSG00000085721	RRN3	-0.034	5.02E-03
ENSG00000177879	AP3S1	0.038	5.04E-03
ENSG00000189369	GSPT2	-0.052	5.04E-03
ENSG00000100100	PIK3IP1	-0.044	5.04E-03
ENSG00000225914	TSBP1-AS1	-0.120	5.05E-03
ENSG00000141569	TRIM65	-0.042	5.05E-03
ENSG00000144559	TAMM41	-0.057	5.05E-03
ENSG00000124429	POF1B	-0.141	5.05E-03
ENSG00000108774	RAB5C	0.043	5.06E-03
ENSG00000280027	AC007342.9	0.095	5.10E-03
ENSG00000168894	RNF181	0.033	5.10E-03
ENSG00000165801	ARHGEF40	0.072	5.12E-03
ENSG00000079616	KIF22	-0.039	5.12E-03
ENSG00000183160	TMEM119	0.166	5.12E-03
ENSG00000163840	DTX3L	0.051	5.13E-03
ENSG00000157978	LDLRAP1	-0.053	5.13E-03
ENSG00000146112	PPP1R18	0.042	5.14E-03
ENSG00000223501	VPS52	-0.034	5.14E-03
ENSG00000120280	TASL	0.047	5.15E-03
ENSG00000018280	SLC11A1	0.073	5.17E-03
ENSG00000258215	AC078886.1	0.083	5.20E-03
ENSG00000012822	CALCOCO1	0.032	5.22E-03
ENSG00000184293	CLECL1	-0.115	5.22E-03
ENSG00000143452	HORMAD1	0.096	5.22E-03
ENSG00000179818	PCBP1-AS1	0.062	5.23E-03
ENSG00000144036	EXOC6B	-0.044	5.23E-03
ENSG00000213693	SEC14L1P1	-0.045	5.25E-03
ENSG00000140395	WDR61	-0.031	5.25E-03
ENSG00000204228	HSD17B8	-0.068	5.25E-03

ENSG00000211695	TRGV9	-0.113	5.26E-03
ENSG00000184083	FAM120C	-0.062	5.27E-03
ENSG00000182768	NGRN	-0.037	5.28E-03
ENSG00000260816	AC027279.1	-0.120	5.28E-03
ENSG00000256712	AC134349.1	-0.074	5.28E-03
ENSG00000105993	DNAJB6	0.030	5.29E-03
ENSG00000285966	AC007686.4	0.164	5.29E-03
ENSG00000235621	LINC00494	-0.122	5.32E-03
ENSG00000177410	ZFAS1	0.043	5.32E-03
ENSG00000078269	SYNJ2	-0.054	5.32E-03
ENSG00000170915	PAQR8	-0.036	5.32E-03
ENSG00000198624	CCDC69	0.031	5.32E-03
ENSG00000230257	NFE4	0.098	5.33E-03
ENSG00000258316	KLF17P1	0.086	5.34E-03
ENSG00000114739	ACVR2B	-0.055	5.34E-03
ENSG00000198408	OGA	0.030	5.34E-03
ENSG00000051825	MPHOSPH9	-0.042	5.34E-03
ENSG00000123219	CENPK	-0.129	5.34E-03
ENSG00000211793	TRAV9-2	-0.076	5.38E-03
ENSG00000160570	DEDD2	0.037	5.39E-03
ENSG00000150054	MPP7	0.040	5.41E-03
ENSG00000267365	KCNJ2-AS1	0.080	5.41E-03
ENSG00000100271	TLL1	-0.052	5.43E-03
ENSG00000121310	ECHDC2	-0.054	5.44E-03
ENSG00000221914	PPP2R2A	0.032	5.44E-03
ENSG00000005020	SKAP2	0.061	5.44E-03
ENSG00000187808	SOWAHD	0.058	5.44E-03
ENSG00000099810	MTAP	-0.046	5.44E-03
ENSG00000124256	ZBP1	0.063	5.44E-03
ENSG00000211821	TRDV2	-0.207	5.47E-03
ENSG00000088298	EDEM2	0.030	5.47E-03
ENSG00000189067	LITAF	0.061	5.48E-03
ENSG00000143498	TAF1A	-0.045	5.51E-03
ENSG00000240342	RPS2P5	-0.189	5.51E-03
ENSG00000014257	ACP3	0.064	5.52E-03
ENSG00000205352	PRR13	0.043	5.52E-03
ENSG00000204568	MRPS18B	-0.039	5.54E-03
ENSG00000080573	COL5A3	-0.208	5.55E-03
ENSG00000270574	AC010680.2	0.054	5.55E-03
ENSG00000134283	PPHLN1	-0.025	5.56E-03
ENSG00000136709	WDR33	-0.024	5.56E-03
ENSG00000177989	ODF3B	0.076	5.60E-03
ENSG00000258831	AC103996.2	0.159	5.61E-03
ENSG00000172081	MOB3A	0.060	5.61E-03
ENSG00000011295	TTC19	-0.033	5.61E-03
ENSG00000113593	PPWD1	-0.032	5.61E-03
ENSG00000186174	BCL9L	-0.070	5.61E-03

ENSG00000256594	AC010186.2	-0.034	5.62E-03
ENSG00000105327	BBC3	0.057	5.62E-03
ENSG00000168734	PKIG	-0.082	5.62E-03
ENSG00000087589	CASS4	0.056	5.63E-03
ENSG00000184432	COPB2	0.024	5.63E-03
ENSG00000186715	MST1L	-0.148	5.64E-03
ENSG00000245571	FAM111A-DT	-0.052	5.67E-03
ENSG00000171984	SHLD1	-0.065	5.67E-03
ENSG00000129493	HEATR5A	0.052	5.68E-03
ENSG00000271011	AC010680.3	0.068	5.68E-03
ENSG00000104154	SLC30A4	-0.052	5.68E-03
ENSG00000104490	NCALD	-0.076	5.68E-03
ENSG00000165555	NOXRED1	0.078	5.68E-03
ENSG00000132849	PATJ	-0.049	5.69E-03
ENSG00000165119	HNRNPK	0.023	5.69E-03
ENSG00000144504	ANKMY1	-0.047	5.69E-03
ENSG00000233452	STXBP5-AS1	0.060	5.71E-03
ENSG00000168872	DDX19A	-0.036	5.72E-03
ENSG00000101236	RNF24	0.076	5.72E-03
ENSG00000286909	AC024560.4	-0.088	5.72E-03
ENSG00000211786	TRAV8-2	-0.078	5.72E-03
ENSG00000188242	PP7080	-0.070	5.74E-03
ENSG00000164048	ZNF589	-0.040	5.74E-03
ENSG00000243660	ZNF487	0.053	5.74E-03
ENSG00000168792	ABHD15	-0.035	5.76E-03
ENSG00000158109	TPRG1L	0.040	5.76E-03
ENSG00000204619	PPP1R11	0.026	5.76E-03
ENSG00000171777	RASGRP4	0.070	5.76E-03
ENSG00000211649	IGLV7-46	0.168	5.79E-03
ENSG00000111678	C12orf57	-0.071	5.79E-03
ENSG00000070501	POLB	0.041	5.79E-03
ENSG00000132549	VPS13B	0.030	5.81E-03
ENSG00000139178	C1RL	0.052	5.82E-03
ENSG00000247199	AC011346.1	0.052	5.82E-03
ENSG00000113649	TCERG1	-0.034	5.83E-03
ENSG00000161328	LRRC56	-0.103	5.84E-03
ENSG00000233975	LINC02574	0.185	5.84E-03
ENSG00000211734	TRBV5-1	-0.076	5.84E-03
ENSG00000198467	TPM2	-0.084	5.85E-03
ENSG00000140471	LINS1	-0.034	5.85E-03
ENSG00000107779	BMPR1A	-0.070	5.85E-03
ENSG00000066651	TRMT11	-0.049	5.85E-03
ENSG00000165233	CARD19	0.046	5.85E-03
ENSG00000100445	SDR39U1	-0.039	5.88E-03
ENSG00000125505	MBOAT7	0.063	5.89E-03
ENSG00000181007	ZFP82	-0.061	5.89E-03
ENSG00000013364	MVP	0.038	5.89E-03

ENSG00000148468	FAM171A1	-0.086	5.91E-03
ENSG00000135114	OASL	0.107	5.91E-03
ENSG00000102265	TIMP1	0.058	5.94E-03
ENSG00000100852	ARHGAP5	-0.044	5.94E-03
ENSG00000204130	RUFY2	-0.045	5.95E-03
ENSG00000205189	ZBTB10	-0.046	5.95E-03
ENSG00000163257	DCAF16	-0.033	5.95E-03
ENSG00000188997	KCTD21	0.051	5.95E-03
ENSG00000142937	RPS8	-0.061	5.96E-03
ENSG00000100138	SNU13	-0.034	5.96E-03
ENSG00000148925	BTBD10	0.030	5.96E-03
ENSG00000164828	SUN1	-0.037	5.96E-03
ENSG00000104043	ATP8B4	0.052	5.98E-03
ENSG00000130826	DKC1	-0.030	6.00E-03
ENSG00000185875	THNSL1	-0.065	6.01E-03
ENSG00000282961	PRNCR1	-0.081	6.01E-03
ENSG00000150347	ARID5B	-0.040	6.01E-03
ENSG00000141564	RPTOR	-0.052	6.02E-03
ENSG00000119953	SMNDC1	0.033	6.03E-03
ENSG00000133114	GPALPP1	-0.038	6.03E-03
ENSG00000128536	CDHR3	-0.070	6.04E-03
ENSG00000261487	AC135048.1	0.103	6.05E-03
ENSG00000163154	TNFAIP8L2	0.030	6.06E-03
ENSG00000245105	A2M-AS1	-0.095	6.07E-03
ENSG00000234545	FAM133B	-0.030	6.07E-03
ENSG00000265118	AC134669.1	0.189	6.07E-03
ENSG00000165591	FAAH2	-0.083	6.07E-03
ENSG00000197363	ZNF517	-0.047	6.07E-03
ENSG00000157077	ZFYVE9	-0.068	6.08E-03
ENSG00000157895	C12orf43	-0.040	6.10E-03
ENSG00000235272	RAMACL	-0.165	6.10E-03
ENSG00000089123	TASP1	-0.040	6.11E-03
ENSG00000266028	SRGAP2	0.048	6.11E-03
ENSG00000273221	AL355816.2	-0.048	6.13E-03
ENSG00000089693	MLF2	0.039	6.13E-03
ENSG00000117500	TMED5	0.029	6.13E-03
ENSG00000234616	JRK	-0.037	6.13E-03
ENSG00000136877	FPGS	-0.044	6.13E-03
ENSG00000147853	AK3	-0.036	6.14E-03
ENSG00000174469	CNTNAP2	-0.202	6.18E-03
ENSG00000178467	P4HTM	-0.034	6.18E-03
ENSG00000160781	PAQR6	0.109	6.21E-03
ENSG00000165886	UBTD1	0.074	6.21E-03
ENSG00000197971	MBP	0.042	6.21E-03
ENSG00000117318	ID3	-0.079	6.21E-03
ENSG00000205056	LINC02397	-0.105	6.21E-03
ENSG00000010030	ETV7	0.166	6.21E-03

ENSG00000167625	ZNF526	-0.047	6.21E-03
ENSG00000139675	HNRNPA1L2	-0.049	6.21E-03
ENSG00000214765	SEPTIN7P2	-0.046	6.21E-03
ENSG00000167555	ZNF528	-0.047	6.22E-03
ENSG00000154359	LONRF1	0.042	6.22E-03
ENSG00000111837	MAK	0.088	6.25E-03
ENSG00000118900	UBN1	0.059	6.26E-03
ENSG00000153179	RASSF3	0.053	6.26E-03
ENSG00000134744	TUT4	-0.036	6.28E-03
ENSG00000143436	MRPL9	-0.043	6.28E-03
ENSG00000253816	GUSBP14	-0.080	6.28E-03
ENSG00000174080	CTSF	-0.062	6.31E-03
ENSG00000100731	PCNX1	0.042	6.31E-03
ENSG00000241772	AC092620.1	0.070	6.32E-03
ENSG00000196683	TOMM7	-0.093	6.32E-03
ENSG00000185989	RASA3	-0.031	6.32E-03
ENSG00000110777	POU2AF1	-0.100	6.32E-03
ENSG00000171310	CHST11	0.042	6.32E-03
ENSG00000116157	GPX7	-0.055	6.33E-03
ENSG00000138074	SLC5A6	-0.055	6.33E-03
ENSG00000107672	NSMCE4A	-0.039	6.33E-03
ENSG00000280997	CCAT2	-0.115	6.34E-03
ENSG00000174574	AKIRIN1	0.027	6.38E-03
ENSG00000230124	ACBD6	-0.029	6.39E-03
ENSG00000100823	APEX1	-0.037	6.39E-03
ENSG00000135298	ADGRB3	0.172	6.40E-03
ENSG00000159917	ZNF235	-0.037	6.40E-03
ENSG00000167077	MEI1	-0.050	6.41E-03
ENSG00000160710	ADAR	0.047	6.41E-03
ENSG00000079385	CEACAM1	0.084	6.42E-03
ENSG00000116824	CD2	-0.064	6.42E-03
ENSG00000110719	TCIRG1	0.049	6.44E-03
ENSG00000164830	OXR1	0.032	6.47E-03
ENSG00000197603	CPLANE1	-0.054	6.47E-03
ENSG00000173638	SLC19A1	0.070	6.47E-03
ENSG00000173083	HPSE	0.056	6.47E-03
ENSG00000114503	NCBP2	-0.032	6.48E-03
ENSG00000251149	MTND5P5	-0.138	6.48E-03
ENSG00000168916	ZNF608	0.117	6.49E-03
ENSG00000070371	CLTCL1	0.075	6.49E-03
ENSG00000099385	BCL7C	-0.049	6.49E-03
ENSG00000156709	AIFM1	-0.027	6.50E-03
ENSG00000125246	CLYBL	-0.059	6.51E-03
ENSG00000197019	SERTAD1	0.045	6.51E-03
ENSG00000068784	SRBD1	0.041	6.52E-03
ENSG00000277053	GTF2IP1	0.051	6.57E-03
ENSG00000185187	SIGIRR	-0.048	6.58E-03

ENSG00000181038	METTL23	-0.036	6.59E-03
ENSG00000150625	GPM6A	-0.214	6.60E-03
ENSG00000171943	SRGAP2C	0.046	6.60E-03
ENSG00000231500	RPS18	-0.081	6.60E-03
ENSG00000175054	ATR	-0.032	6.68E-03
ENSG00000170385	SLC30A1	0.040	6.69E-03
ENSG00000139624	CERS5	0.034	6.70E-03
ENSG00000118058	KMT2A	-0.049	6.70E-03
ENSG00000223705	NSUN5P1	-0.051	6.70E-03
ENSG00000168310	IRF2	0.039	6.70E-03
ENSG00000197299	BLM	-0.051	6.70E-03
ENSG00000108175	ZMIZ1	0.072	6.71E-03
ENSG00000287562	AL109615.4	-0.070	6.71E-03
ENSG00000169439	SDC2	0.146	6.71E-03
ENSG00000155097	ATP6V1C1	0.044	6.73E-03
ENSG00000107854	TNKS2	0.019	6.73E-03
ENSG00000167972	ABCA3	-0.094	6.75E-03
ENSG00000125347	IRF1	0.044	6.75E-03
ENSG00000254876	SUGT1P4-STRA6LP	-0.051	6.78E-03
ENSG00000130363	RSPH3	0.059	6.80E-03
ENSG00000075213	SEMA3A	-0.198	6.81E-03
ENSG00000108984	MAP2K6	0.050	6.81E-03
ENSG00000162244	RPL29	-0.044	6.82E-03
ENSG00000133641	C12orf29	-0.053	6.83E-03
ENSG00000106714	CNTNAP3	0.124	6.84E-03
ENSG00000126749	EMG1	-0.046	6.84E-03
ENSG00000087053	MTMR2	-0.033	6.84E-03
ENSG00000189190	ZNF600	-0.070	6.84E-03
ENSG00000143110	C1orf162	0.036	6.84E-03
ENSG00000147050	KDM6A	0.031	6.86E-03
ENSG00000279430	AL590560.4	0.098	6.87E-03
ENSG00000182149	IST1	0.022	6.89E-03
ENSG00000233396	LINC01719	-0.073	6.91E-03
ENSG00000232629	HLA-DQB2	-0.323	6.91E-03
ENSG00000103351	CLUAP1	-0.068	6.93E-03
ENSG00000089022	MAPKAPK5	-0.031	6.93E-03
ENSG00000020426	MNAT1	-0.050	6.93E-03
ENSG00000223969	AC002456.1	0.099	6.96E-03
ENSG00000163882	POLR2H	-0.042	6.98E-03
ENSG00000074603	DPP8	0.021	6.98E-03
ENSG00000110619	CARS1	0.027	6.98E-03
ENSG00000124226	RNF114	0.023	6.99E-03
ENSG00000129480	DTD2	-0.046	7.00E-03
ENSG00000173208	ABCD2	-0.053	7.00E-03
ENSG00000248309	MEF2C-AS1	0.069	7.02E-03
ENSG00000151743	AMN1	0.045	7.03E-03
ENSG00000142409	ZNF787	0.039	7.03E-03

ENSG00000211785	TRAV12-1	-0.082	7.05E-03
ENSG00000248124	RRN3P1	-0.047	7.05E-03
ENSG00000103187	COTL1	0.039	7.05E-03
ENSG00000110987	BCL7A	-0.080	7.05E-03
ENSG00000136874	STX17	-0.036	7.08E-03
ENSG00000229585	RPL21P44	0.069	7.08E-03
ENSG00000152518	ZFP36L2	0.029	7.08E-03
ENSG00000113460	BRIX1	-0.052	7.09E-03
ENSG00000186496	ZNF396	0.069	7.10E-03
ENSG00000234773	AC012618.3	-0.078	7.15E-03
ENSG00000181220	ZNF746	0.054	7.16E-03
ENSG00000235834	Z93022.1	0.102	7.17E-03
ENSG00000100448	CTSG	0.189	7.17E-03
ENSG00000198040	ZNF84	-0.042	7.20E-03
ENSG00000140743	CDR2	-0.046	7.22E-03
ENSG00000065882	TBC1D1	0.041	7.23E-03
ENSG00000126775	ATG14	-0.027	7.23E-03
ENSG00000188868	ZNF563	-0.079	7.23E-03
ENSG00000253882	AC099548.2	-0.068	7.24E-03
ENSG00000281000	SNORD3D	-0.448	7.24E-03
ENSG00000147140	NONO	-0.018	7.24E-03
ENSG00000257715	AC007298.1	0.136	7.24E-03
ENSG00000163220	S100A9	0.073	7.24E-03
ENSG00000176595	KBTBD11	0.043	7.24E-03
ENSG00000130827	PLXNA3	-0.129	7.25E-03
ENSG00000100385	IL2RB	-0.071	7.26E-03
ENSG00000176658	MYO1D	-0.075	7.26E-03
ENSG00000204147	ASAH2B	-0.076	7.26E-03
ENSG00000283486	FAM95C	-0.146	7.28E-03
ENSG00000033627	ATP6V0A1	0.052	7.29E-03
ENSG00000167333	TRIM68	-0.041	7.29E-03
ENSG00000187037	GPR141	0.069	7.30E-03
ENSG00000136866	ZFP37	-0.090	7.30E-03
ENSG00000198832	SELENOM	-0.078	7.31E-03
ENSG00000006327	TNFRSF12A	0.072	7.33E-03
ENSG00000072110	ACTN1	0.060	7.35E-03
ENSG00000186431	FCAR	0.072	7.38E-03
ENSG00000255517	AP002748.4	-0.082	7.39E-03
ENSG00000142408	CACNG8	0.127	7.40E-03
ENSG00000179115	FARSA	-0.040	7.41E-03
ENSG00000272079	AC004233.2	0.102	7.41E-03
ENSG00000196911	KPNA5	-0.061	7.41E-03
ENSG00000013810	TACC3	0.044	7.41E-03
ENSG00000234663	LINC01934	-0.087	7.42E-03
ENSG00000167565	SERTAD3	0.037	7.42E-03
ENSG00000213654	GPSM3	0.040	7.42E-03
ENSG00000184005	ST6GALNAC3	0.076	7.43E-03

ENSG00000197880	MDS2	-0.116	7.43E-03
ENSG00000177646	ACAD9	-0.034	7.43E-03
ENSG00000138821	SLC39A8	-0.048	7.43E-03
ENSG00000102043	MTMR8	-0.065	7.43E-03
ENSG00000109065	NAT9	-0.037	7.44E-03
ENSG00000111906	HDCC2	-0.050	7.44E-03
ENSG00000132356	PRKAA1	0.022	7.44E-03
ENSG00000266256	LINC00683	0.143	7.44E-03
ENSG00000257337	AC068888.1	-0.151	7.44E-03
ENSG00000133818	RRAS2	-0.056	7.44E-03
ENSG00000105612	DNASE2	0.044	7.45E-03
ENSG00000075914	EXOSC7	-0.034	7.48E-03
ENSG00000131100	ATP6V1E1	0.030	7.48E-03
ENSG00000163823	CCR1	0.068	7.48E-03
ENSG00000100644	HIF1A	0.040	7.48E-03
ENSG00000127995	CASD1	-0.038	7.48E-03
ENSG00000185324	CDK10	-0.055	7.48E-03
ENSG00000136758	YME1L1	0.021	7.49E-03
ENSG00000249309	AC020703.1	0.121	7.49E-03
ENSG00000100578	KIAA0586	-0.032	7.49E-03
ENSG00000185973	TMLHE	0.037	7.49E-03
ENSG00000127824	TUBA4A	0.045	7.49E-03
ENSG00000261338	AC021016.1	0.034	7.50E-03
ENSG00000136878	USP20	-0.040	7.50E-03
ENSG00000118181	RPS25	-0.063	7.51E-03
ENSG00000145569	OTULINL	0.045	7.52E-03
ENSG00000010278	CD9	0.086	7.56E-03
ENSG00000182841	RRP7BP	-0.053	7.56E-03
ENSG00000166548	TK2	0.055	7.57E-03
ENSG00000275569	AL355073.2	0.084	7.57E-03
ENSG00000226950	DANCR	-0.045	7.59E-03
ENSG00000181450	ZNF678	-0.054	7.59E-03
ENSG00000268043	NBPF12	-0.048	7.61E-03
ENSG00000115318	LOXL3	0.063	7.61E-03
ENSG00000161267	BDH1	-0.063	7.62E-03
ENSG00000161395	PGAP3	-0.059	7.62E-03
ENSG00000078070	MCCC1	-0.038	7.63E-03
ENSG00000202058	RN7SKP80	0.104	7.67E-03
ENSG00000243101	RPS3P7	-0.151	7.69E-03
ENSG00000156313	RPGR	0.057	7.70E-03
ENSG00000163564	PYHIN1	-0.054	7.71E-03
ENSG00000060971	ACAA1	0.030	7.72E-03
ENSG00000242324	AL049634.1	0.066	7.74E-03
ENSG00000259660	DNM1P47	-0.083	7.74E-03
ENSG00000256771	ZNF253	-0.067	7.74E-03
ENSG00000026103	FAS	0.044	7.74E-03
ENSG00000151929	BAG3	-0.065	7.75E-03

ENSG00000115541	HSPE1	-0.062	7.75E-03
ENSG00000100462	PRMT5	0.049	7.77E-03
ENSG00000097096	SYDE2	-0.076	7.78E-03
ENSG00000120709	FAM53C	0.055	7.80E-03
ENSG00000162594	IL23R	-0.146	7.80E-03
ENSG00000157551	KCNJ15	0.082	7.80E-03
ENSG00000121406	ZNF549	-0.036	7.80E-03
ENSG00000249021	AC008549.2	-0.087	7.80E-03
ENSG00000164162	ANAPC10	-0.053	7.80E-03
ENSG00000232334	AL683842.1	0.087	7.80E-03
ENSG00000169062	UPF3A	-0.038	7.85E-03
ENSG00000087995	METTL2A	-0.048	7.85E-03
ENSG00000214439	FAM185BP	0.046	7.85E-03
ENSG00000273247	RAB33B-AS1	0.038	7.86E-03
ENSG00000125166	GOT2	-0.033	7.86E-03
ENSG00000183060	LYSMD4	-0.046	7.90E-03
ENSG00000159720	ATP6V0D1	0.046	7.90E-03
ENSG00000173145	NOC3L	-0.048	7.91E-03
ENSG00000025156	HSF2	-0.052	7.91E-03
ENSG00000244026	FAM86DP	-0.095	7.91E-03
ENSG00000104320	NBN	0.037	7.92E-03
ENSG00000137154	RPS6	-0.070	7.92E-03
ENSG00000066230	SLC9A3	-0.085	7.92E-03
ENSG00000158869	FCER1G	0.053	7.92E-03
ENSG00000223959	AFG3L1P	-0.034	7.92E-03
ENSG00000113048	MRPS27	-0.043	7.92E-03
ENSG00000145882	PCYOX1L	-0.035	7.92E-03
ENSG00000150782	IL18	0.056	7.93E-03
ENSG00000165168	CYBB	0.044	7.99E-03
ENSG00000165672	PRDX3	0.030	7.99E-03
ENSG00000124383	MPHOSPH10	-0.041	8.00E-03
ENSG00000168661	ZNF30	-0.072	8.00E-03
ENSG00000110318	CEP126	-0.065	8.00E-03
ENSG00000151327	FAM177A1	0.035	8.02E-03
ENSG00000178947	SMIM10L2A	-0.099	8.03E-03
ENSG00000249129	SUDS3P1	-0.119	8.03E-03
ENSG00000187601	MAGEH1	-0.051	8.03E-03
ENSG00000140367	UBE2Q2	-0.036	8.03E-03
ENSG00000241294	IGKV2-24	0.150	8.03E-03
ENSG00000225151	GOLGA2P7	-0.069	8.03E-03
ENSG00000114853	ZBTB47	0.049	8.03E-03
ENSG00000115325	DOK1	0.041	8.03E-03
ENSG00000100024	UPB1	0.101	8.04E-03
ENSG00000117899	MESD	-0.024	8.04E-03
ENSG00000149357	LAMTOR1	0.033	8.05E-03
ENSG00000180979	LRRC57	0.039	8.05E-03
ENSG00000186407	CD300E	0.056	8.06E-03

ENSG00000158711	ELK4	-0.034	8.09E-03
ENSG00000103423	DNAJA3	-0.038	8.12E-03
ENSG00000157654	PALM2AKAP2	-0.062	8.12E-03
ENSG00000075426	FOSL2	0.058	8.17E-03
ENSG00000177946	CENPBD1	0.041	8.17E-03
ENSG00000101152	DNAJC5	0.033	8.18E-03
ENSG00000112294	ALDH5A1	-0.077	8.18E-03
ENSG00000105443	CYTH2	0.032	8.18E-03
ENSG00000135297	MTO1	-0.035	8.18E-03
ENSG00000165061	ZMAT4	-0.198	8.18E-03
ENSG00000140396	NCOA2	0.038	8.19E-03
ENSG00000196839	ADA	-0.046	8.19E-03
ENSG00000174953	DHX36	-0.033	8.20E-03
ENSG00000168028	RPSA	-0.057	8.20E-03
ENSG00000059588	TARBP1	-0.045	8.20E-03
ENSG00000279689	AC022400.7	-0.082	8.20E-03
ENSG00000115762	PLEKHB2	0.024	8.20E-03
ENSG00000171467	ZNF318	-0.045	8.20E-03
ENSG00000184428	TOP1MT	-0.058	8.21E-03
ENSG00000090006	LTBP4	-0.075	8.22E-03
ENSG00000226498	RPSAP21	-0.097	8.22E-03
ENSG00000158473	CD1D	0.047	8.22E-03
ENSG00000164241	C5orf63	-0.062	8.22E-03
ENSG00000064601	CTSA	0.051	8.22E-03
ENSG00000166938	DIS3L	-0.039	8.22E-03
ENSG00000127946	HIP1	0.089	8.24E-03
ENSG00000138688	KIAA1109	0.034	8.24E-03
ENSG00000279207	AC015813.6	-0.039	8.24E-03
ENSG00000164576	SAP30L	0.035	8.24E-03
ENSG00000214176	PLEKHM1P1	0.040	8.24E-03
ENSG00000139433	GLTP	0.028	8.27E-03
ENSG00000101230	ISM1	-0.113	8.27E-03
ENSG00000007392	LUC7L	-0.033	8.28E-03
ENSG00000165275	TRMT10B	-0.048	8.29E-03
ENSG00000140848	CPNE2	0.055	8.29E-03
ENSG00000171049	FPR2	0.071	8.29E-03
ENSG00000218809	AL391903.1	0.075	8.29E-03
ENSG00000185507	IRF7	0.071	8.29E-03
ENSG00000185963	BICD2	0.033	8.29E-03
ENSG00000132842	AP3B1	0.024	8.30E-03
ENSG00000089902	RCOR1	0.052	8.30E-03
ENSG00000196873	CBWD3	0.036	8.30E-03
ENSG00000124201	ZNFX1	0.039	8.30E-03
ENSG00000164104	HMGB2	0.060	8.30E-03
ENSG00000283064	AL353759.1	0.082	8.31E-03
ENSG00000178307	TMEM11	0.036	8.31E-03
ENSG00000130590	SAMD10	-0.104	8.33E-03

ENSG00000280035	AC011676.5	0.078	8.34E-03
ENSG00000186787	SPIN2B	-0.054	8.34E-03
ENSG00000112078	KCTD20	0.030	8.35E-03
ENSG00000175782	SLC35E3	0.037	8.37E-03
ENSG00000184465	WDR27	-0.053	8.37E-03
ENSG00000100147	CCDC134	-0.064	8.39E-03
ENSG00000204519	ZNF551	-0.043	8.39E-03
ENSG00000116209	TMEM59	0.040	8.40E-03
ENSG00000257621	PSMA3-AS1	0.023	8.40E-03
ENSG00000180539	C9orf139	0.073	8.40E-03
ENSG00000070759	TESK2	0.046	8.42E-03
ENSG00000232931	LINC00342	-0.040	8.44E-03
ENSG00000112576	CCND3	0.032	8.46E-03
ENSG00000155755	TMEM237	-0.083	8.49E-03
ENSG00000270959	LPP-AS2	0.062	8.49E-03
ENSG00000059691	GATB	-0.041	8.49E-03
ENSG00000185305	ARL15	0.035	8.51E-03
ENSG00000100395	L3MBTL2	-0.032	8.51E-03
ENSG00000147533	GOLGA7	0.027	8.53E-03
ENSG00000138594	TMOD3	0.028	8.53E-03
ENSG00000141556	TBCD	-0.040	8.53E-03
ENSG00000171055	FEZ2	0.027	8.53E-03
ENSG00000183726	TMEM50A	0.036	8.54E-03
ENSG00000151779	NBAS	-0.028	8.55E-03
ENSG00000251230	MIR3945HG	0.099	8.57E-03
ENSG00000204713	TRIM27	0.026	8.57E-03
ENSG00000143727	ACP1	-0.049	8.57E-03
ENSG00000172671	ZFAND4	-0.045	8.58E-03
ENSG00000100612	DHRS7	0.039	8.59E-03
ENSG00000117395	EBNA1BP2	-0.039	8.59E-03
ENSG00000229899	AC084290.1	0.086	8.62E-03
ENSG00000163600	ICOS	-0.055	8.64E-03
ENSG00000170515	PA2G4	-0.041	8.65E-03
ENSG00000076554	TPD52	-0.057	8.68E-03
ENSG00000197405	C5AR1	0.072	8.68E-03
ENSG00000272047	GTF2H5	-0.071	8.69E-03
ENSG00000265787	CYP4F35P	-0.140	8.70E-03
ENSG00000146094	DOK3	0.061	8.70E-03
ENSG00000260855	AL591848.3	0.093	8.70E-03
ENSG00000117859	OSBPL9	0.025	8.71E-03
ENSG00000128335	APOL2	0.046	8.71E-03
ENSG00000102349	KLF8	-0.067	8.73E-03
ENSG00000147459	DOCK5	0.067	8.73E-03
ENSG00000081307	UBA5	-0.047	8.75E-03
ENSG00000287625	AC022210.1	-0.095	8.76E-03
ENSG00000128311	TST	0.058	8.77E-03
ENSG00000126709	IFI6	0.123	8.77E-03

ENSG00000258301	VASH1-AS1	-0.063	8.77E-03
ENSG00000082258	CCNT2	0.026	8.78E-03
ENSG00000117322	CR2	-0.107	8.78E-03
ENSG00000152689	RASGRP3	-0.073	8.80E-03
ENSG00000105618	PRPF31	-0.036	8.81E-03
ENSG00000110651	CD81	-0.043	8.81E-03
ENSG00000103522	IL21R	-0.045	8.82E-03
ENSG00000143374	TARS2	-0.041	8.84E-03
ENSG00000116983	HPCAL4	-0.090	8.85E-03
ENSG00000204389	HSPA1A	0.062	8.86E-03
ENSG00000285851	AL359762.3	0.060	8.86E-03
ENSG00000232528	AL109809.1	0.092	8.88E-03
ENSG00000197323	TRIM33	0.023	8.88E-03
ENSG00000136250	AOAH	0.039	8.92E-03
ENSG00000083099	LYRM2	-0.059	8.93E-03
ENSG00000141376	BCAS3	0.039	8.95E-03
ENSG00000117281	CD160	-0.101	8.97E-03
ENSG00000233369	GTF2IP4	0.055	9.00E-03
ENSG00000064999	ANKS1A	0.042	9.00E-03
ENSG00000166750	SLFN5	-0.040	9.01E-03
ENSG00000211802	TRAV22	-0.083	9.01E-03
ENSG00000169084	DHRX	0.044	9.03E-03
ENSG00000127364	TAS2R4	-0.060	9.03E-03
ENSG00000128218	VPREB3	-0.128	9.03E-03
ENSG00000175414	ARL10	-0.083	9.05E-03
ENSG00000138430	OLA1	-0.043	9.06E-03
ENSG00000154174	TOMM70	-0.034	9.07E-03
ENSG00000121988	ZRANB3	-0.085	9.08E-03
ENSG00000068831	RASGRP2	-0.026	9.09E-03
ENSG00000215580	BCORP1	-0.069	9.10E-03
ENSG00000169413	RNASE6	0.062	9.12E-03
ENSG00000179909	ZNF154	-0.086	9.13E-03
ENSG00000143933	CALM2	0.041	9.13E-03
ENSG00000079215	SLC1A3	0.130	9.14E-03
ENSG00000278897	AC020951.1	-0.053	9.14E-03
ENSG00000277149	TYW1B	-0.048	9.14E-03
ENSG00000137802	MAPKBP1	-0.054	9.14E-03
ENSG00000073756	PTGS2	0.059	9.15E-03
ENSG00000174776	WDR49	0.080	9.19E-03
ENSG00000153944	MSI2	-0.040	9.19E-03
ENSG00000127663	KDM4B	0.053	9.21E-03
ENSG00000114626	ABTB1	0.059	9.22E-03
ENSG00000149273	RPS3	-0.050	9.23E-03
ENSG00000181690	PLAG1	-0.068	9.23E-03
ENSG00000174483	BBS1	-0.049	9.23E-03
ENSG00000185261	KIAA0825	0.059	9.24E-03
ENSG00000079246	XRCC5	0.022	9.27E-03

ENSG00000136997	MYC	-0.044	9.27E-03
ENSG00000286129	AC245060.7	-0.061	9.27E-03
ENSG00000143947	RPS27A	-0.065	9.29E-03
ENSG00000135966	TGFBRAP1	-0.027	9.29E-03
ENSG00000238121	LINC00426	-0.046	9.31E-03
ENSG00000005108	THSD7A	0.201	9.31E-03
ENSG00000030582	GRN	0.053	9.34E-03
ENSG00000229769	TRBV10-2	-0.152	9.37E-03
ENSG00000169554	ZEB2	0.038	9.38E-03
ENSG00000135972	MRPS9	-0.039	9.44E-03
ENSG00000158290	CUL4B	0.028	9.44E-03
ENSG00000060339	CCAR1	-0.027	9.44E-03
ENSG00000158321	AUTS2	-0.075	9.45E-03
ENSG00000148606	POLR3A	-0.027	9.46E-03
ENSG00000247572	CKMT2-AS1	-0.066	9.46E-03
ENSG00000166579	NDEL1	0.044	9.47E-03
ENSG00000105717	PBX4	-0.071	9.50E-03
ENSG00000167257	RNF214	-0.046	9.52E-03
ENSG00000213347	MXD3	0.062	9.53E-03
ENSG00000217555	CKLF	0.047	9.53E-03
ENSG00000026559	KCNG1	-0.161	9.53E-03
ENSG00000154719	MRPL39	-0.049	9.53E-03
ENSG00000254901	BORCS8	0.046	9.53E-03
ENSG00000174446	SNAPC5	-0.035	9.53E-03
ENSG00000132635	PCED1A	-0.046	9.55E-03
ENSG00000125826	RBCK1	0.033	9.56E-03
ENSG00000262209	PCDHGB3	-0.108	9.57E-03
ENSG00000230149	AL021707.3	0.117	9.57E-03
ENSG00000214114	MYCBP	0.045	9.59E-03
ENSG00000234771	SLC25A25-AS1	-0.068	9.59E-03
ENSG00000142207	URB1	-0.054	9.59E-03
ENSG00000131238	PPT1	0.053	9.61E-03
ENSG00000125885	MCM8	-0.056	9.62E-03
ENSG00000197728	RPS26	-0.135	9.62E-03
ENSG00000149177	PTPRJ	0.053	9.62E-03
ENSG00000227730	MTND6P5	0.113	9.62E-03
ENSG00000141505	ASGR1	0.063	9.64E-03
ENSG00000114023	FAM162A	-0.045	9.64E-03
ENSG00000220804	LINC01881	-0.059	9.65E-03
ENSG00000244720	NT5C3AP2	-0.070	9.67E-03
ENSG00000204316	MRPL38	-0.048	9.67E-03
ENSG00000278156	TSC22D1-AS1	-0.067	9.67E-03
ENSG00000115607	IL18RAP	0.081	9.68E-03
ENSG00000166888	STAT6	0.034	9.68E-03
ENSG00000231711	LINC00899	0.060	9.68E-03
ENSG00000116685	KIAA2013	0.033	9.68E-03
ENSG00000151304	SRFBP1	-0.037	9.68E-03

ENSG00000172508	CARNS1	-0.095	9.69E-03
ENSG00000116260	QSOX1	0.050	9.69E-03
ENSG00000068654	POLR1A	-0.050	9.71E-03
ENSG00000164483	SAMD3	-0.060	9.71E-03
ENSG00000228794	LINC01128	-0.052	9.76E-03
ENSG00000108861	DUSP3	0.040	9.77E-03
ENSG00000187118	CMC1	-0.073	9.80E-03
ENSG00000184371	CSF1	0.099	9.80E-03
ENSG00000119599	DCAF4	-0.065	9.80E-03
ENSG00000048991	R3HDM1	-0.049	9.80E-03
ENSG00000174842	GLMN	-0.050	9.80E-03
ENSG00000198464	ZNF480	-0.058	9.80E-03
ENSG00000222078	RN7SKP110	-0.109	9.80E-03
ENSG00000125952	MAX	0.029	9.81E-03
ENSG00000170509	HSD17B13	0.091	9.86E-03
ENSG00000137941	TTLL7	0.129	9.89E-03
ENSG00000275023	MLLT6	-0.046	9.89E-03
ENSG00000138032	PPM1B	0.021	9.89E-03
ENSG00000113643	RARS1	-0.047	9.89E-03
ENSG00000122034	GTF3A	-0.039	9.90E-03
ENSG00000204161	TMEM273	0.063	9.91E-03
ENSG00000197150	ABCB8	-0.049	9.91E-03
ENSG00000176994	SMCR8	0.022	9.91E-03
ENSG00000138336	TET1	-0.044	1.00E-02
ENSG00000100359	SGSM3	-0.040	1.00E-02
ENSG00000187531	SIRT7	0.030	1.00E-02
ENSG00000266967	AARSD1	-0.042	1.00E-02
ENSG00000275342	PRAG1	-0.060	1.00E-02
ENSG00000166483	WEE1	-0.052	1.00E-02
ENSG00000236567	TCF3P1	0.089	1.01E-02
ENSG00000253154	AC100801.1	0.222	1.01E-02
ENSG00000137877	SPTBN5	-0.097	1.01E-02
ENSG00000154310	TNIK	-0.037	1.01E-02
ENSG00000267858	MZF1-AS1	-0.048	1.01E-02
ENSG00000197694	SPTAN1	-0.046	1.01E-02
ENSG00000088538	DOCK3	-0.064	1.01E-02
ENSG00000083544	TDRD3	-0.035	1.01E-02
ENSG00000131797	CLUHP3	-0.055	1.02E-02
ENSG00000279741	AC007342.8	0.102	1.02E-02
ENSG00000122547	EEPD1	0.057	1.02E-02
ENSG00000102172	SMS	0.033	1.02E-02
ENSG00000130177	CDC16	-0.032	1.02E-02
ENSG00000258727	AL135999.1	-0.044	1.02E-02
ENSG00000104689	TNFRSF10A	-0.042	1.03E-02
ENSG00000122406	RPL5	-0.058	1.03E-02
ENSG00000071127	WDR1	0.026	1.03E-02
ENSG00000166333	ILK	0.031	1.03E-02

ENSG00000177600	RPLP2	-0.046	1.03E-02
ENSG00000112306	RPS12	-0.050	1.03E-02
ENSG00000122729	ACO1	-0.032	1.03E-02
ENSG00000007264	MATK	-0.071	1.03E-02
ENSG00000174579	MSL2	0.018	1.03E-02
ENSG00000179195	ZNF664	-0.035	1.03E-02
ENSG00000136271	DDX56	-0.027	1.04E-02
ENSG00000250312	ZNF718	-0.049	1.04E-02
ENSG00000060688	SNRNP40	-0.027	1.04E-02
ENSG00000184221	OLIG1	0.092	1.04E-02
ENSG00000169116	PARM1	-0.094	1.04E-02
ENSG00000248858	FLJ46284	0.070	1.04E-02
ENSG00000004534	RBM6	-0.030	1.04E-02
ENSG00000185115	NSMCE3	-0.037	1.04E-02
ENSG00000119682	AREL1	0.033	1.04E-02
ENSG00000165792	METT17	-0.034	1.05E-02
ENSG00000085415	SEH1L	-0.034	1.05E-02
ENSG00000213588	ZBTB9	-0.044	1.05E-02
ENSG00000104998	IL27RA	-0.030	1.05E-02
ENSG00000161643	SIGLEC16	0.104	1.05E-02
ENSG00000188846	RPL14	-0.042	1.05E-02
ENSG00000101546	RBFA	-0.044	1.05E-02
ENSG00000119414	PPP6C	0.022	1.05E-02
ENSG00000130414	NDUFA10	-0.019	1.05E-02
ENSG00000256553	TRAV1-2	-0.099	1.05E-02
ENSG00000257315	ZBED6	0.040	1.06E-02
ENSG00000050405	LIMA1	-0.053	1.06E-02
ENSG00000170185	USP38	0.019	1.06E-02
ENSG00000198937	CCDC167	-0.072	1.06E-02
ENSG00000144306	SCRN3	0.036	1.06E-02
ENSG00000215912	TTC34	-0.079	1.06E-02
ENSG00000134444	RELCH	0.024	1.07E-02
ENSG00000164983	TMEM65	0.024	1.07E-02
ENSG00000261596	AC005632.3	0.050	1.07E-02
ENSG00000037280	FLT4	-0.125	1.07E-02
ENSG00000138380	CARF	-0.042	1.07E-02
ENSG00000148200	NR6A1	0.081	1.07E-02
ENSG00000197119	SLC25A29	0.079	1.07E-02
ENSG00000184162	NR2C2AP	-0.044	1.07E-02
ENSG00000129460	NGDN	-0.044	1.08E-02
ENSG00000101868	POLA1	-0.044	1.08E-02
ENSG00000081026	MAGI3	-0.078	1.08E-02
ENSG00000156650	KAT6B	-0.035	1.08E-02
ENSG00000120053	GOT1	-0.044	1.08E-02
ENSG00000234432	AC092171.3	0.093	1.08E-02
ENSG00000005156	LIG3	-0.039	1.08E-02
ENSG00000146373	RNF217	0.072	1.08E-02

ENSG00000113734	BNIP1	-0.051	1.08E-02
ENSG00000111300	NAA25	-0.043	1.09E-02
ENSG00000214113	LYRM4	-0.047	1.09E-02
ENSG00000101336	HCK	0.051	1.09E-02
ENSG00000147654	EBAG9	-0.040	1.09E-02
ENSG00000163126	ANKRD23	-0.065	1.09E-02
ENSG00000258824	AL122035.1	-0.087	1.09E-02
ENSG00000253669	GASAL1	-0.074	1.09E-02
ENSG00000168228	ZCCHC4	-0.037	1.09E-02
ENSG00000165138	ANKS6	-0.069	1.09E-02
ENSG00000206190	ATP10A	-0.050	1.09E-02
ENSG00000170458	CD14	0.058	1.09E-02
ENSG00000118507	AKAP7	-0.072	1.10E-02
ENSG00000228782	MRPL45P2	-0.065	1.10E-02
ENSG00000234911	TEX21P	-0.078	1.10E-02
ENSG00000287837	AL590064.1	-0.051	1.10E-02
ENSG00000007516	BAIAP3	0.103	1.10E-02
ENSG00000079134	THOC1	-0.036	1.10E-02
ENSG00000271022	AP002365.1	-0.091	1.10E-02
ENSG00000108561	C1QBP	-0.034	1.10E-02
ENSG00000168434	COG7	-0.037	1.11E-02
ENSG00000083312	TNPO1	0.025	1.11E-02
ENSG00000161016	RPL8	-0.042	1.11E-02
ENSG00000279821	AC145098.2	0.082	1.11E-02
ENSG00000144579	CTDSP1	0.033	1.11E-02
ENSG00000243477	NAA80	-0.077	1.11E-02
ENSG00000071054	MAP4K4	0.039	1.11E-02
ENSG00000115207	GTF3C2	-0.038	1.11E-02
ENSG00000267102	AC060766.1	0.054	1.11E-02
ENSG00000154814	OXNAD1	-0.046	1.12E-02
ENSG00000247400	DNAJC3-DT	0.060	1.12E-02
ENSG00000169504	CLIC4	0.043	1.13E-02
ENSG00000185339	TCN2	0.085	1.13E-02
ENSG00000160446	ZDHHC12	0.048	1.13E-02
ENSG00000133895	MEN1	-0.051	1.13E-02
ENSG00000163013	FBXO41	-0.078	1.13E-02
ENSG00000173535	TNFRSF10C	0.062	1.13E-02
ENSG00000186260	MRTFB	-0.051	1.14E-02
ENSG00000204261	PSMB8-AS1	0.027	1.14E-02
ENSG00000010270	STARD3NL	0.038	1.14E-02
ENSG00000172264	MACROD2	-0.130	1.14E-02
ENSG00000177169	ULK1	0.059	1.14E-02
ENSG00000111110	PPM1H	0.079	1.14E-02
ENSG00000226337	TMEM252-DT	0.128	1.14E-02
ENSG00000105447	GRWD1	-0.052	1.14E-02
ENSG00000112299	VNN1	0.092	1.14E-02
ENSG00000154511	DIPK1A	-0.042	1.14E-02

ENSG00000137642	SORL1	0.055	1.14E-02
ENSG00000155229	MMS19	-0.024	1.14E-02
ENSG00000110203	FOLR3	0.134	1.14E-02
ENSG00000272800	AC021851.1	-0.086	1.14E-02
ENSG00000135838	NPL	0.054	1.15E-02
ENSG00000151461	UPF2	0.022	1.15E-02
ENSG00000141551	CSNK1D	0.037	1.15E-02
ENSG00000161955	TNFSF13	0.047	1.15E-02
ENSG00000280079	AC011447.7	-0.095	1.15E-02
ENSG00000196569	LAMA2	-0.107	1.15E-02
ENSG00000129197	RPAIN	-0.035	1.16E-02
ENSG00000224032	EPB41L4A-AS1	-0.064	1.16E-02
ENSG00000100266	PACSIN2	0.047	1.16E-02
ENSG00000167434	CA4	0.084	1.16E-02
ENSG00000173511	VEGFB	-0.085	1.16E-02
ENSG00000143376	SNX27	0.051	1.17E-02
ENSG00000005471	ABCB4	-0.108	1.17E-02
ENSG00000063177	RPL18	-0.038	1.17E-02
ENSG00000102743	SLC25A15	-0.048	1.17E-02
ENSG00000151876	FBXO4	-0.060	1.17E-02
ENSG00000171456	ASXL1	-0.032	1.17E-02
ENSG00000143753	DEGS1	0.029	1.17E-02
ENSG00000156697	UTP14A	-0.034	1.17E-02
ENSG00000123700	KCNJ2	0.063	1.17E-02
ENSG00000166441	RPL27A	-0.051	1.17E-02
ENSG00000229628	AC073115.1	-0.121	1.17E-02
ENSG00000018189	RUFY3	-0.032	1.17E-02
ENSG00000180881	CAPS2	-0.054	1.17E-02
ENSG00000168813	ZNF507	-0.032	1.17E-02
ENSG00000243335	KCTD7	-0.030	1.17E-02
ENSG00000149923	PPP4C	0.036	1.18E-02
ENSG00000237892	KLF7-IT1	0.055	1.18E-02
ENSG00000256664	AC025423.2	0.075	1.18E-02
ENSG00000271605	MILR1	0.064	1.18E-02
ENSG00000243811	APOBEC3D	-0.057	1.18E-02
ENSG00000249138	SLED1	0.083	1.18E-02
ENSG00000121807	CCR2	0.048	1.19E-02
ENSG00000279811	AC093330.2	0.048	1.19E-02
ENSG00000234492	RPL34-DT	-0.111	1.19E-02
ENSG00000107937	GTPBP4	-0.042	1.19E-02
ENSG00000168646	AXIN2	-0.073	1.19E-02
ENSG00000176410	DNAJC30	-0.050	1.19E-02
ENSG00000226979	LTA	-0.074	1.19E-02
ENSG00000204577	LILRB3	0.065	1.19E-02
ENSG00000116863	ADPRS	0.032	1.19E-02
ENSG00000176171	BNIP3	-0.046	1.19E-02
ENSG00000100300	TSPO	0.050	1.19E-02

ENSG00000234883	MIR155HG	-0.108	1.19E-02
ENSG00000159082	SYNJ1	0.038	1.20E-02
ENSG00000141956	PRDM15	-0.046	1.20E-02
ENSG00000089053	ANAPC5	-0.019	1.20E-02
ENSG00000134852	CLOCK	-0.053	1.20E-02
ENSG00000153551	CMTM7	0.030	1.20E-02
ENSG00000058866	DGKG	0.064	1.20E-02
ENSG00000079257	LXN	0.052	1.21E-02
ENSG00000271461	CKAP2LP1	0.087	1.21E-02
ENSG00000148300	REXO4	-0.035	1.21E-02
ENSG00000164332	UBLCP1	0.029	1.21E-02
ENSG00000271582	AC073111.1	-0.127	1.21E-02
ENSG00000033011	ALG1	-0.044	1.22E-02
ENSG00000168116	KIAA1586	-0.056	1.22E-02
ENSG00000188917	TRMT2B	-0.030	1.22E-02
ENSG00000149196	HIKESHI	-0.037	1.22E-02
ENSG00000173041	ZNF680	-0.047	1.22E-02
ENSG00000141664	ZCCHC2	0.060	1.22E-02
ENSG00000173926	MARCHF3	-0.078	1.22E-02
ENSG00000092820	EZR	-0.033	1.22E-02
ENSG00000128654	MTX2	-0.049	1.22E-02
ENSG00000161249	DMKN	-0.166	1.23E-02
ENSG00000065029	ZNF76	-0.042	1.23E-02
ENSG00000109113	RAB34	0.053	1.23E-02
ENSG00000151835	SACS	-0.049	1.23E-02
ENSG00000254087	LYN	0.056	1.23E-02
ENSG00000243725	TTC4	-0.044	1.23E-02
ENSG00000150995	ITPR1	-0.039	1.23E-02
ENSG00000127954	STEAP4	0.067	1.23E-02
ENSG00000180901	KCTD2	0.027	1.23E-02
ENSG00000117505	DR1	0.023	1.23E-02
ENSG00000112378	PERP	-0.085	1.23E-02
ENSG00000177425	PAWR	-0.097	1.23E-02
ENSG00000241721	SUMO1P1	0.087	1.23E-02
ENSG00000164466	SFXN1	-0.039	1.24E-02
ENSG00000274929	AL157813.1	0.053	1.24E-02
ENSG00000189298	ZKSCAN3	-0.041	1.24E-02
ENSG00000140090	SLC24A4	0.068	1.24E-02
ENSG00000170545	SMAGP	-0.064	1.24E-02
ENSG00000130935	NOL11	-0.034	1.25E-02
ENSG00000106263	EIF3B	-0.035	1.25E-02
ENSG00000134326	CMPK2	0.117	1.25E-02
ENSG00000235437	LINC01278	-0.057	1.25E-02
ENSG00000163687	DNASE1L3	-0.131	1.25E-02
ENSG00000197081	IGF2R	0.064	1.25E-02
ENSG00000214552	COPS8P2	-0.099	1.25E-02
ENSG00000051128	HOMER3	0.061	1.25E-02

ENSG00000136811	ODF2	-0.031	1.25E-02
ENSG00000142676	RPL11	-0.070	1.25E-02
ENSG00000107949	BCCIP	-0.032	1.25E-02
ENSG00000236296	GUSBP5	-0.189	1.25E-02
ENSG00000184271	POU6F1	-0.083	1.25E-02
ENSG00000233757	AC092835.1	-0.048	1.25E-02
ENSG00000060982	BCAT1	0.086	1.25E-02
ENSG00000163519	TRAT1	-0.060	1.25E-02
ENSG00000113916	BCL6	0.068	1.25E-02
ENSG00000173020	GRK2	0.030	1.25E-02
ENSG00000165185	KIAA1958	0.056	1.26E-02
ENSG00000172354	GNB2	0.053	1.26E-02
ENSG00000135537	AFG1L	-0.067	1.26E-02
ENSG00000240303	ACAD11	-0.046	1.26E-02
ENSG00000169442	CD52	-0.079	1.26E-02
ENSG00000260943	LINC02555	0.119	1.26E-02
ENSG00000113522	RAD50	-0.039	1.26E-02
ENSG00000235568	NFAM1	0.057	1.26E-02
ENSG00000132781	MUTYH	-0.042	1.26E-02
ENSG00000006744	ELAC2	-0.033	1.26E-02
ENSG00000109667	SLC2A9	0.049	1.27E-02
ENSG00000232956	SNHG15	-0.039	1.27E-02
ENSG00000166510	CCDC68	-0.183	1.27E-02
ENSG00000129226	CD68	0.049	1.28E-02
ENSG00000134684	YARS1	-0.026	1.28E-02
ENSG00000012817	KDM5D	-0.033	1.28E-02
ENSG00000015532	XYLT2	-0.035	1.28E-02
ENSG00000277687	AL139407.1	0.051	1.28E-02
ENSG00000249485	RBBP4P1	-0.083	1.28E-02
ENSG00000123130	ACOT9	0.038	1.28E-02
ENSG00000126001	CEP250	-0.042	1.28E-02
ENSG00000211699	TRGV3	-0.134	1.28E-02
ENSG00000100014	SPECC1L	-0.027	1.28E-02
ENSG00000108306	FBXL20	0.035	1.28E-02
ENSG00000258731	AL356020.1	-0.097	1.29E-02
ENSG00000102081	FMR1	0.025	1.29E-02
ENSG00000173611	SCAI	-0.048	1.29E-02
ENSG00000182511	FES	0.050	1.29E-02
ENSG00000083845	RPS5	-0.052	1.29E-02
ENSG00000253214	AC079209.1	0.096	1.29E-02
ENSG00000136280	CCM2	0.025	1.29E-02
ENSG00000099797	TECR	-0.041	1.29E-02
ENSG00000109436	TBC1D9	-0.046	1.29E-02
ENSG00000135976	ANKRD36	-0.040	1.30E-02
ENSG00000253522	MIR3142HG	-0.056	1.30E-02
ENSG00000176731	RBIS	-0.063	1.30E-02
ENSG00000117984	CTSD	0.049	1.30E-02

ENSG0000008300	CELSR3	-0.092	1.30E-02
ENSG00000204576	PRR3	-0.046	1.31E-02
ENSG00000213337	ANKRD39	-0.048	1.31E-02
ENSG00000177666	PNPLA2	0.053	1.31E-02
ENSG00000066294	CD84	-0.033	1.31E-02
ENSG00000111832	RWDD1	-0.067	1.31E-02
ENSG00000213542	AC007000.1	0.066	1.31E-02
ENSG00000142330	CAPN10	-0.038	1.31E-02
ENSG00000196712	NF1	0.035	1.31E-02
ENSG00000167721	TSR1	-0.034	1.31E-02
ENSG00000138646	HERC5	0.112	1.32E-02
ENSG00000089737	DDX24	-0.036	1.32E-02
ENSG00000263956	NBPF11	-0.033	1.32E-02
ENSG00000101158	NELFCD	-0.029	1.32E-02
ENSG00000135486	HNRNPA1	-0.032	1.32E-02
ENSG00000271943	AC098614.2	-0.116	1.32E-02
ENSG00000267040	AC027097.1	-0.038	1.32E-02
ENSG00000175895	PLEKHF2	0.033	1.32E-02
ENSG00000135720	DYNC1LI2	0.021	1.32E-02
ENSG00000164663	USP49	0.039	1.32E-02
ENSG00000251467	AC020893.1	0.092	1.32E-02
ENSG00000148840	PPRC1	-0.068	1.32E-02
ENSG00000204934	ATP6V0E2-AS1	-0.063	1.32E-02
ENSG00000043462	LCP2	0.032	1.32E-02
ENSG00000163660	CCNL1	0.023	1.32E-02
ENSG00000136273	HUS1	-0.030	1.33E-02
ENSG00000241839	PLEKHO2	0.044	1.33E-02
ENSG00000107771	CCSER2	-0.032	1.33E-02
ENSG00000117174	ZNHIT6	-0.033	1.33E-02
ENSG00000077420	APBB1IP	0.044	1.33E-02
ENSG00000120915	EPHX2	-0.070	1.33E-02
ENSG00000179918	SEPHS2	0.026	1.33E-02
ENSG00000275210	AC245884.11	0.081	1.33E-02
ENSG00000250510	GPR162	0.087	1.34E-02
ENSG00000185000	DGAT1	0.039	1.34E-02
ENSG00000197562	RAB40C	0.039	1.34E-02
ENSG00000231728	TMSB15B-AS1	-0.079	1.34E-02
ENSG00000108528	SLC25A11	0.028	1.34E-02
ENSG00000108423	TUBD1	-0.049	1.34E-02
ENSG00000108799	EZH1	0.024	1.35E-02
ENSG00000204427	ABHD16A	0.026	1.35E-02
ENSG00000164933	SLC25A32	-0.032	1.35E-02
ENSG00000181481	RNF135	0.037	1.36E-02
ENSG00000116251	RPL22	-0.052	1.36E-02
ENSG00000228606	AL139011.1	-0.089	1.36E-02
ENSG00000135365	PHF21A	0.049	1.36E-02
ENSG00000091409	ITGA6	-0.046	1.37E-02

ENSG00000120008	WDR11	-0.028	1.37E-02
ENSG00000171858	RPS21	-0.078	1.37E-02
ENSG00000239827	SUGT1P3	-0.067	1.37E-02
ENSG00000114942	EEF1B2	-0.085	1.37E-02
ENSG00000170004	CHD3	-0.033	1.37E-02
ENSG00000167895	TMC8	-0.047	1.37E-02
ENSG00000268205	AC005261.1	-0.029	1.37E-02
ENSG00000126091	ST3GAL3	-0.048	1.37E-02
ENSG00000197629	MPEG1	0.038	1.38E-02
ENSG00000174891	RSRC1	-0.031	1.38E-02
ENSG00000140988	RPS2	-0.036	1.38E-02
ENSG00000105971	CAV2	0.141	1.38E-02
ENSG00000163539	CLASP2	-0.029	1.38E-02
ENSG00000015285	WAS	0.057	1.38E-02
ENSG00000256582	LINC02390	-0.098	1.38E-02
ENSG00000079805	DNM2	0.029	1.38E-02
ENSG00000203710	CR1	0.066	1.38E-02
ENSG00000088808	PPP1R13B	-0.073	1.38E-02
ENSG00000132405	TBC1D14	0.041	1.38E-02
ENSG00000100216	TOMM22	-0.037	1.39E-02
ENSG00000112232	KHDRBS2	-0.101	1.39E-02
ENSG00000130811	EIF3G	-0.030	1.39E-02
ENSG00000203993	ARRDC1-AS1	-0.035	1.39E-02
ENSG00000133943	DGLUCY	0.042	1.39E-02
ENSG00000235290	HLA-W	0.113	1.39E-02
ENSG00000240445	FOXO3B	-0.074	1.39E-02
ENSG00000276293	PIP4K2B	-0.023	1.40E-02
ENSG00000187446	CHP1	0.042	1.40E-02
ENSG00000143314	MRPL24	-0.043	1.40E-02
ENSG00000256937	KRT17P8	-0.094	1.40E-02
ENSG00000142875	PRKACB	-0.044	1.41E-02
ENSG00000242352	FAM91A3P	0.079	1.41E-02
ENSG00000165355	FBXO33	0.026	1.41E-02
ENSG00000171033	PKIA	-0.063	1.41E-02
ENSG00000250696	AC111000.4	0.117	1.41E-02
ENSG00000118894	EEF2KMT	-0.056	1.41E-02
ENSG00000198060	MARCHF5	0.034	1.41E-02
ENSG00000214018	RRM2P3	0.086	1.41E-02
ENSG00000105640	RPL18A	-0.044	1.41E-02
ENSG00000156398	SFXN2	-0.071	1.41E-02
ENSG00000147403	RPL10	-0.041	1.42E-02
ENSG00000110066	KMT5B	0.021	1.42E-02
ENSG00000148384	INPP5E	-0.063	1.42E-02
ENSG00000116791	CRYZ	-0.065	1.42E-02
ENSG00000154957	ZNF18	0.027	1.42E-02
ENSG00000146592	CREB5	0.066	1.42E-02
ENSG00000131171	SH3BGRL	0.032	1.42E-02

ENSG00000100749	VRK1	-0.053	1.42E-02
ENSG00000270177	AC104109.2	-0.073	1.42E-02
ENSG00000079277	MKNK1	0.045	1.42E-02
ENSG00000011028	MRC2	-0.116	1.42E-02
ENSG00000172315	TP53RK	-0.035	1.42E-02
ENSG00000157870	PRXL2B	-0.045	1.43E-02
ENSG00000100814	CCNB1IP1	-0.045	1.43E-02
ENSG00000116138	DNAJC16	-0.033	1.43E-02
ENSG00000132773	TOE1	-0.036	1.43E-02
ENSG00000163026	WDCP	-0.041	1.43E-02
ENSG00000116922	C1orf109	-0.038	1.43E-02
ENSG00000204623	ZNRD1ASP	-0.035	1.43E-02
ENSG00000182670	TTC3	-0.034	1.43E-02
ENSG00000198162	MAN1A2	-0.028	1.43E-02
ENSG00000101452	DHX35	-0.027	1.43E-02
ENSG00000116874	WARS2	-0.039	1.43E-02
ENSG00000174444	RPL4	-0.049	1.43E-02
ENSG00000246526	LINC02481	-0.067	1.43E-02
ENSG00000225434	LINC01504	0.049	1.44E-02
ENSG00000250616	AC012645.1	0.069	1.44E-02
ENSG00000183506	PI4KAP2	-0.075	1.44E-02
ENSG00000146476	ARMT1	0.038	1.44E-02
ENSG00000121481	RNF2	0.030	1.44E-02
ENSG00000171105	INSR	0.060	1.44E-02
ENSG00000128585	MKLN1	0.028	1.44E-02
ENSG00000151612	ZNF827	-0.074	1.45E-02
ENSG00000185808	PIGP	-0.052	1.45E-02
ENSG00000186350	RXRA	0.044	1.45E-02
ENSG00000166478	ZNF143	0.029	1.45E-02
ENSG00000119729	RHOQ	0.029	1.45E-02
ENSG00000269982	AC018809.2	-0.103	1.45E-02
ENSG00000089009	RPL6	-0.058	1.45E-02
ENSG00000204264	PSMB8	0.031	1.46E-02
ENSG00000152147	GEMIN6	-0.060	1.46E-02
ENSG00000151465	CDC123	0.030	1.46E-02
ENSG00000262879	AC005670.3	-0.048	1.46E-02
ENSG00000136891	TEX10	-0.028	1.46E-02
ENSG00000184860	SDR42E1	-0.068	1.46E-02
ENSG00000102678	FGF9	-0.120	1.46E-02
ENSG00000258890	CEP95	-0.036	1.46E-02
ENSG00000143869	GDF7	-0.127	1.46E-02
ENSG00000139826	ABHD13	0.031	1.46E-02
ENSG00000164919	COX6C	-0.079	1.46E-02
ENSG00000178440	TIMM23B-AGAP6	-0.079	1.46E-02
ENSG00000272752	STAG3L5P-PVRIG2P-P	-0.040	1.47E-02
ENSG00000184436	THAP7	-0.041	1.47E-02
ENSG00000172159	FRMD3	0.078	1.48E-02

ENSG00000214293	APTR	0.055	1.48E-02
ENSG00000148459	PDSS1	0.056	1.48E-02
ENSG00000254772	EEF1G	-0.045	1.48E-02
ENSG00000104133	SPG11	0.029	1.48E-02
ENSG00000122642	FKBP9	0.087	1.48E-02
ENSG00000178338	ZNF354B	-0.045	1.48E-02
ENSG00000275993	SIK1B	-0.192	1.49E-02
ENSG00000230910	AL391807.1	0.146	1.49E-02
ENSG00000078699	CBFA2T2	-0.045	1.49E-02
ENSG00000109501	WFS1	-0.126	1.49E-02
ENSG00000034053	APBA2	-0.052	1.49E-02
ENSG00000214652	ZNF727	-0.141	1.49E-02
ENSG00000197006	METTL9	0.045	1.49E-02
ENSG00000135469	COQ10A	-0.043	1.50E-02
ENSG00000136371	MTHFS	0.046	1.51E-02
ENSG00000177409	SAMD9L	0.065	1.51E-02
ENSG00000173727	AP000769.1	0.095	1.51E-02
ENSG00000104177	MYEF2	-0.066	1.51E-02
ENSG00000112343	TRIM38	0.027	1.51E-02
ENSG00000205155	PSENE1	0.039	1.51E-02
ENSG00000111885	MAN1A1	0.045	1.51E-02
ENSG00000085998	POMGNT1	-0.039	1.51E-02
ENSG00000237943	PRKCQ-AS1	-0.051	1.51E-02
ENSG00000133639	BTG1	0.025	1.52E-02
ENSG00000078246	TULP3	-0.053	1.52E-02
ENSG00000174514	MFSD4A	-0.127	1.52E-02
ENSG00000287713	AC006517.2	0.100	1.52E-02
ENSG00000188158	NHS	0.076	1.52E-02
ENSG00000131051	RBM39	0.021	1.52E-02
ENSG00000007968	E2F2	-0.101	1.52E-02
ENSG00000196943	NOP9	-0.027	1.52E-02
ENSG00000106605	BLVRA	0.049	1.53E-02
ENSG00000287467	AC037459.4	-0.067	1.53E-02
ENSG00000115525	ST3GAL5	-0.036	1.53E-02
ENSG00000160685	ZBTB7B	0.042	1.53E-02
ENSG00000162613	FUBP1	-0.024	1.54E-02
ENSG00000055208	TAB2	0.025	1.54E-02
ENSG00000204271	SPIN3	-0.038	1.54E-02
ENSG00000180304	OAZ2	0.047	1.54E-02
ENSG00000233836	AC139769.1	-0.065	1.54E-02
ENSG00000118520	ARG1	0.113	1.54E-02
ENSG00000198829	SUCNR1	0.092	1.54E-02
ENSG00000137502	RAB30	-0.067	1.54E-02
ENSG00000213918	DNASE1	0.029	1.55E-02
ENSG00000171603	CLSTN1	-0.041	1.55E-02
ENSG00000142166	IFNAR1	0.036	1.55E-02
ENSG00000133131	MORC4	-0.039	1.55E-02

ENSG00000115539	PDCL3	-0.042	1.55E-02
ENSG00000132274	TRIM22	0.048	1.55E-02
ENSG00000170234	PWWP2A	0.020	1.55E-02
ENSG00000249859	PVT1	-0.051	1.55E-02
ENSG00000186810	CXCR3	-0.089	1.55E-02
ENSG00000172809	RPL38	-0.034	1.55E-02
ENSG00000196531	NACA	-0.034	1.55E-02
ENSG00000260339	HEXA-AS1	-0.077	1.55E-02
ENSG00000101132	PFDN4	-0.114	1.55E-02
ENSG00000205981	DNAJC19	-0.040	1.56E-02
ENSG00000186153	WVOX	-0.052	1.56E-02
ENSG00000180370	PAK2	0.051	1.56E-02
ENSG00000247853	AC06064.2	0.072	1.57E-02
ENSG00000138448	ITGAV	0.036	1.57E-02
ENSG00000144566	RAB5A	0.027	1.57E-02
ENSG00000149823	VPS51	-0.032	1.58E-02
ENSG00000101474	APMAP	0.047	1.58E-02
ENSG00000141101	NOB1	-0.038	1.58E-02
ENSG00000186056	MATN1-AS1	-0.080	1.59E-02
ENSG00000077454	LRCH4	0.036	1.59E-02
ENSG00000283674	AC068587.4	-0.072	1.59E-02
ENSG00000124243	BCAS4	-0.059	1.59E-02
ENSG00000167395	ZNF646	0.042	1.60E-02
ENSG00000085978	ATG16L1	-0.027	1.60E-02
ENSG00000008869	HEATR5B	-0.031	1.60E-02
ENSG00000156502	SUPV3L1	-0.034	1.60E-02
ENSG00000204103	MAFB	0.054	1.60E-02
ENSG00000182195	LDOC1	-0.113	1.60E-02
ENSG00000186469	GNG2	0.028	1.60E-02
ENSG00000161547	SRSF2	-0.021	1.60E-02
ENSG00000145220	LYAR	-0.046	1.60E-02
ENSG00000166411	IDH3A	-0.037	1.60E-02
ENSG00000162144	CYB561A3	-0.036	1.60E-02
ENSG00000198301	SDAD1	-0.034	1.60E-02
ENSG00000135899	SP110	0.045	1.61E-02
ENSG00000111229	ARPC3	0.032	1.61E-02
ENSG00000205746	PKD1P4	-0.106	1.61E-02
ENSG00000147099	HDAC8	-0.033	1.61E-02
ENSG00000185869	ZNF829	-0.051	1.61E-02
ENSG00000111203	ITFG2	-0.036	1.62E-02
ENSG00000196670	ZFP62	-0.040	1.62E-02
ENSG00000234456	MAGI2-AS3	0.130	1.62E-02
ENSG00000177954	RPS27	-0.102	1.62E-02
ENSG00000156639	ZFAND3	0.042	1.62E-02
ENSG00000162636	FAM102B	0.025	1.62E-02
ENSG00000204315	FKBPL	0.059	1.62E-02
ENSG00000170310	STX8	-0.028	1.62E-02

ENSG00000169895	SYAP1	0.028	1.62E-02
ENSG00000081721	DUSP12	-0.042	1.63E-02
ENSG00000166532	RIMKLB	-0.038	1.63E-02
ENSG00000101363	MANBAL	0.030	1.63E-02
ENSG00000138780	GSTCD	-0.056	1.63E-02
ENSG00000275066	SYNRG	-0.026	1.63E-02
ENSG00000115993	TRAK2	-0.073	1.63E-02
ENSG00000134901	POGLUT2	-0.118	1.63E-02
ENSG00000063587	ZNF275	-0.039	1.63E-02
ENSG00000242294	STAG3L5P	-0.041	1.63E-02
ENSG00000163348	PYGO2	-0.027	1.63E-02
ENSG00000028137	TNFRSF1B	0.041	1.63E-02
ENSG00000147274	RBMX	-0.025	1.63E-02
ENSG00000142546	NOSIP	-0.039	1.63E-02
ENSG00000152778	IFIT5	0.069	1.64E-02
ENSG00000133116	KL	0.092	1.64E-02
ENSG00000115761	NOL10	-0.036	1.64E-02
ENSG00000151690	MFSD6	-0.035	1.64E-02
ENSG00000115694	STK25	-0.033	1.64E-02
ENSG00000285571	AL513548.4	-0.089	1.64E-02
ENSG00000111729	CLEC4A	0.047	1.64E-02
ENSG00000189046	ALKBH2	-0.053	1.65E-02
ENSG00000181982	CCDC149	0.067	1.65E-02
ENSG00000136319	TTC5	-0.028	1.65E-02
ENSG00000116663	FBXO6	0.057	1.65E-02
ENSG00000138796	HADH	-0.037	1.65E-02
ENSG00000113716	HMGXB3	-0.028	1.65E-02
ENSG00000285728	AC098484.4	-0.086	1.66E-02
ENSG00000234493	RHOXF1P1	0.135	1.67E-02
ENSG00000170959	DCDC1	-0.158	1.67E-02
ENSG00000276007	AC079414.3	-0.090	1.68E-02
ENSG00000136942	RPL35	-0.074	1.68E-02
ENSG00000072210	ALDH3A2	-0.030	1.68E-02
ENSG00000144476	ACKR3	-0.055	1.68E-02
ENSG00000067141	NEO1	-0.090	1.68E-02
ENSG00000197381	ADARB1	-0.053	1.68E-02
ENSG00000163508	EOMES	-0.070	1.68E-02
ENSG00000267767	LINC01801	-0.073	1.69E-02
ENSG00000286231	AL445423.3	0.129	1.69E-02
ENSG00000187605	TET3	0.043	1.69E-02
ENSG00000164190	NIPBL	0.031	1.69E-02
ENSG00000081386	ZNF510	-0.043	1.69E-02
ENSG00000106771	TMEM245	-0.030	1.69E-02
ENSG00000205572	SERF1B	-0.083	1.69E-02
ENSG00000119673	ACOT2	-0.057	1.69E-02
ENSG00000180233	ZNRF2	0.026	1.69E-02
ENSG00000214999	AC129492.1	-0.084	1.69E-02

ENSG00000155307	SAMSN1	0.041	1.70E-02
ENSG00000165533	TTC8	-0.070	1.71E-02
ENSG00000187815	ZFP69	-0.044	1.71E-02
ENSG00000051523	CYBA	0.043	1.71E-02
ENSG00000075624	ACTB	0.039	1.71E-02
ENSG00000238269	PAGE2B	-0.128	1.71E-02
ENSG00000185436	IFNLR1	-0.072	1.71E-02
ENSG00000163608	NEPRO	-0.030	1.71E-02
ENSG00000279632	AP003108.4	0.060	1.71E-02
ENSG00000286808	AC092338.3	-0.082	1.71E-02
ENSG00000228939	AKT3-IT1	-0.107	1.71E-02
ENSG00000115520	COQ10B	0.027	1.71E-02
ENSG00000244701	AC004918.1	-0.051	1.72E-02
ENSG00000101935	AMMECR1	-0.037	1.72E-02
ENSG00000165410	CFL2	-0.053	1.72E-02
ENSG00000250159	AC106791.1	-0.049	1.72E-02
ENSG00000226287	TMEM191A	-0.106	1.72E-02
ENSG00000271643	AC112220.2	0.073	1.73E-02
ENSG00000187098	MITF	0.073	1.73E-02
ENSG00000188786	MTF1	0.050	1.73E-02
ENSG00000109881	CCDC34	-0.095	1.73E-02
ENSG00000186416	NKRF	-0.029	1.73E-02
ENSG00000213339	QTRT1	-0.048	1.73E-02
ENSG00000054523	KIF1B	0.058	1.73E-02
ENSG00000177335	C8orf31	-0.156	1.74E-02
ENSG00000243175	RPSAP36	0.078	1.74E-02
ENSG00000258057	BCDIN3D-AS1	-0.116	1.74E-02
ENSG00000219200	RNASEK	0.039	1.75E-02
ENSG00000264745	TTC39C-AS1	-0.121	1.76E-02
ENSG00000007923	DNAJC11	-0.034	1.76E-02
ENSG00000152404	CWF19L2	-0.032	1.76E-02
ENSG00000138801	PAPSS1	0.043	1.76E-02
ENSG00000119866	BCL11A	-0.062	1.76E-02
ENSG00000241525	AC141424.1	-0.093	1.76E-02
ENSG00000051596	THOC3	-0.045	1.76E-02
ENSG00000147996	CBWD5	0.036	1.77E-02
ENSG00000182173	TSEN54	-0.046	1.77E-02
ENSG00000109943	CRTAM	-0.074	1.77E-02
ENSG00000255036	SUGT1P4-STRA6LP-CC	-0.068	1.77E-02
ENSG00000120889	TNFRSF10B	0.031	1.77E-02
ENSG00000177054	ZDHHC13	0.028	1.77E-02
ENSG00000069329	VPS35	0.025	1.78E-02
ENSG00000276476	LINC00540	-0.126	1.78E-02
ENSG00000182919	C11orf54	0.034	1.78E-02
ENSG00000158691	ZSCAN12	-0.042	1.78E-02
ENSG00000287542	HERC3	0.085	1.78E-02
ENSG00000198171	DDRKG1	-0.028	1.78E-02

ENSG00000240057	AC078785.1	-0.088	1.78E-02
ENSG00000246016	LINC01513	0.094	1.78E-02
ENSG00000005801	ZNF195	-0.034	1.79E-02
ENSG00000234741	GAS5	-0.075	1.79E-02
ENSG00000286207	AC012443.2	0.063	1.79E-02
ENSG00000179889	PDXDC1	-0.030	1.79E-02
ENSG00000270012	AC232271.1	-0.040	1.79E-02
ENSG00000099308	MAST3	0.050	1.79E-02
ENSG00000163492	CCDC141	-0.064	1.79E-02
ENSG00000089012	SIRPG	-0.057	1.79E-02
ENSG00000162889	MAPKAPK2	0.032	1.79E-02
ENSG00000102967	DHODH	-0.063	1.79E-02
ENSG00000129450	SIGLEC9	0.046	1.80E-02
ENSG00000285730	Z94721.3	0.047	1.80E-02
ENSG00000112137	PHACTR1	0.066	1.80E-02
ENSG00000136826	KLF4	0.048	1.80E-02
ENSG00000278972	AC015920.1	-0.067	1.80E-02
ENSG00000279456	AL353763.1	-0.078	1.80E-02
ENSG00000198270	TMEM116	-0.039	1.80E-02
ENSG00000165661	QSOX2	-0.035	1.81E-02
ENSG00000076944	STXBP2	0.040	1.81E-02
ENSG00000139173	TMEM117	-0.088	1.81E-02
ENSG00000179886	TIGD5	-0.039	1.81E-02
ENSG00000138078	PREPL	-0.027	1.81E-02
ENSG00000196365	LONP1	-0.037	1.81E-02
ENSG00000198934	MAGEE1	-0.060	1.81E-02
ENSG00000180992	MRPL14	-0.039	1.81E-02
ENSG00000063046	EIF4B	-0.030	1.82E-02
ENSG00000260306	AC092375.2	-0.078	1.82E-02
ENSG00000138942	RNF185	0.029	1.82E-02
ENSG00000228863	AL121985.1	-0.073	1.82E-02
ENSG00000097007	ABL1	-0.054	1.82E-02
ENSG00000262001	DLGAP1-AS2	0.047	1.82E-02
ENSG00000251369	ZNF550	-0.040	1.82E-02
ENSG00000105058	FAM32A	0.026	1.82E-02
ENSG00000166801	FAM111A	0.024	1.82E-02
ENSG00000112031	MTRF1L	0.036	1.83E-02
ENSG00000257176	AC009318.1	0.071	1.83E-02
ENSG00000092929	UNC13D	0.041	1.83E-02
ENSG00000197050	ZNF420	-0.054	1.83E-02
ENSG00000135090	TAOK3	0.021	1.83E-02
ENSG00000111615	KRR1	-0.058	1.83E-02
ENSG00000162086	ZNF75A	-0.034	1.83E-02
ENSG00000068650	ATP11A	0.053	1.83E-02
ENSG00000100029	PES1	-0.032	1.84E-02
ENSG00000270956	AC009948.2	0.051	1.84E-02
ENSG00000111269	CREBL2	-0.025	1.84E-02

ENSG00000229036	VDAC1P8	-0.048	1.84E-02
ENSG00000213523	SRA1	0.031	1.84E-02
ENSG00000167658	EEF2	-0.030	1.84E-02
ENSG00000169871	TRIM56	0.028	1.84E-02
ENSG00000164758	MED30	0.036	1.84E-02
ENSG00000188732	FAM221A	-0.063	1.85E-02
ENSG00000248697	TOX4P1	0.084	1.85E-02
ENSG00000268001	CARD8-AS1	0.039	1.85E-02
ENSG00000168216	LMBRD1	0.030	1.85E-02
ENSG00000167461	RAB8A	0.028	1.86E-02
ENSG00000197808	ZNF461	-0.056	1.86E-02
ENSG00000254838	GVINP1	-0.030	1.86E-02
ENSG00000162813	BPNT1	-0.045	1.86E-02
ENSG00000144152	FBLN7	-0.068	1.86E-02
ENSG00000008517	IL32	-0.045	1.86E-02
ENSG00000111224	PARP11	-0.036	1.87E-02
ENSG00000198677	TTC37	-0.032	1.87E-02
ENSG00000115806	GORASP2	-0.039	1.87E-02
ENSG00000241343	RPL36A	-0.108	1.87E-02
ENSG00000174365	SNHG11	-0.054	1.87E-02
ENSG00000121594	CD80	-0.090	1.87E-02
ENSG00000101246	ARFRP1	-0.026	1.87E-02
ENSG00000186231	KLHL32	-0.079	1.87E-02
ENSG00000149925	ALDOA	0.034	1.89E-02
ENSG00000140284	SLC27A2	0.101	1.89E-02
ENSG00000197283	SYNGAP1	-0.104	1.89E-02
ENSG00000279447	AL118508.3	0.094	1.90E-02
ENSG00000256742	KDM2B-DT	-0.080	1.90E-02
ENSG00000185033	SEMA4B	0.049	1.90E-02
ENSG00000072682	P4HA2	0.121	1.91E-02
ENSG00000120256	LRP11	-0.082	1.91E-02
ENSG00000163110	PDLIM5	0.032	1.91E-02
ENSG00000004975	DVL2	-0.043	1.91E-02
ENSG00000176124	DLEU1	-0.059	1.91E-02
ENSG00000158467	AHCYL2	-0.045	1.91E-02
ENSG00000218730	AL117342.1	-0.104	1.92E-02
ENSG00000068305	MEF2A	0.034	1.92E-02
ENSG00000197894	ADH5	-0.034	1.92E-02
ENSG00000087266	SH3BP2	0.044	1.92E-02
ENSG00000273272	U62317.3	0.070	1.92E-02
ENSG00000135870	RC3H1	0.035	1.92E-02
ENSG00000234420	ZNF37BP	-0.026	1.92E-02
ENSG00000178761	FAM219B	-0.028	1.92E-02
ENSG00000265625	AC104564.5	0.056	1.92E-02
ENSG00000288302	AL132709.8	0.089	1.92E-02
ENSG00000131355	ADGRE3	0.054	1.93E-02
ENSG00000272325	NUDT3	0.021	1.93E-02

ENSG00000170260	ZNF212	-0.029	1.93E-02
ENSG00000126353	CCR7	-0.061	1.93E-02
ENSG00000163069	SGCB	-0.055	1.93E-02
ENSG00000186517	ARHGAP30	0.024	1.93E-02
ENSG00000243678	NME2	-0.042	1.93E-02
ENSG00000221923	ZNF880	-0.049	1.94E-02
ENSG00000176715	ACSF3	-0.035	1.94E-02
ENSG00000090054	SPTLC1	0.019	1.94E-02
ENSG00000090565	RAB11FIP3	-0.052	1.94E-02
ENSG00000236213	AC006369.1	-0.059	1.95E-02
ENSG00000134321	RSAD2	0.155	1.95E-02
ENSG00000101052	IFT52	-0.042	1.95E-02
ENSG00000221990	EXOC3-AS1	-0.077	1.95E-02
ENSG00000234292	AC123595.1	0.100	1.95E-02
ENSG00000224745	AC063965.2	0.090	1.95E-02
ENSG00000180747	SMG1P3	-0.038	1.95E-02
ENSG00000143612	C1orf43	0.024	1.95E-02
ENSG00000129824	RPS4Y1	-0.042	1.95E-02
ENSG00000203896	LIME1	-0.067	1.95E-02
ENSG00000269825	AC022150.4	-0.040	1.96E-02
ENSG00000102901	CENPT	-0.048	1.96E-02
ENSG00000127616	SMARCA4	-0.039	1.97E-02
ENSG00000253910	PCDHGB2	-0.100	1.97E-02
ENSG00000137501	SYTL2	-0.067	1.97E-02
ENSG00000111328	CDK2AP1	0.043	1.98E-02
ENSG00000174840	PDE12	-0.020	1.98E-02
ENSG00000164142	FAM160A1	0.136	1.98E-02
ENSG00000140577	CRTC3	-0.038	1.99E-02
ENSG00000072849	DERL2	0.026	1.99E-02
ENSG00000269194	AC006942.1	0.102	1.99E-02
ENSG00000107164	FUBP3	-0.025	1.99E-02
ENSG00000271964	AC090948.1	-0.065	1.99E-02
ENSG00000284234	TAF11L5	0.254	1.99E-02
ENSG00000168818	STX18	-0.036	1.99E-02
ENSG00000197070	ARRDC1	0.034	1.99E-02
ENSG00000162869	PPP1R21	0.026	2.00E-02
ENSG00000121964	GTDC1	0.031	2.00E-02
ENSG00000087152	ATXN7L3	0.026	2.00E-02
ENSG00000130023	ERMARD	-0.032	2.00E-02
ENSG00000081692	JMJD4	-0.039	2.00E-02
ENSG00000148824	MTG1	-0.046	2.01E-02
ENSG00000140443	IGF1R	0.060	2.01E-02
ENSG00000196632	WNK3	-0.151	2.01E-02
ENSG00000101849	TBL1X	0.049	2.01E-02
ENSG00000288025	AC093849.4	0.061	2.01E-02
ENSG00000269609	RPARP-AS1	-0.033	2.01E-02
ENSG00000267322	SNHG22	-0.055	2.02E-02

ENSG00000287586	Z98886.1	0.102	2.02E-02
ENSG00000120051	CFAP58	0.077	2.03E-02
ENSG00000064547	LPAR2	0.055	2.03E-02
ENSG00000086827	ZW10	-0.028	2.03E-02
ENSG00000279433	AC018529.3	0.051	2.03E-02
ENSG00000102755	FLT1	0.099	2.04E-02
ENSG00000106012	IQCE	0.048	2.04E-02
ENSG00000170633	RNF34	0.016	2.04E-02
ENSG00000141524	TMC6	-0.033	2.04E-02
ENSG00000204524	ZNF805	-0.021	2.04E-02
ENSG00000254556	AF131215.2	-0.086	2.04E-02
ENSG00000165632	TAF3	-0.026	2.04E-02
ENSG00000229832	AL360091.1	0.072	2.04E-02
ENSG00000074266	EED	-0.027	2.05E-02
ENSG00000177406	NINJ2-AS1	0.039	2.05E-02
ENSG00000164283	ESM1	-0.132	2.05E-02
ENSG00000156110	ADK	-0.036	2.05E-02
ENSG00000181045	SLC26A11	-0.048	2.05E-02
ENSG00000112877	CEP72	-0.061	2.06E-02
ENSG00000069275	NUCKS1	-0.031	2.07E-02
ENSG00000214960	CRPPA	-0.089	2.07E-02
ENSG00000206149	HERC2P9	-0.037	2.07E-02
ENSG00000110107	PRPF19	-0.029	2.08E-02
ENSG00000237781	ADAMTSL4-AS2	0.082	2.08E-02
ENSG00000237638	LINC02245	-0.066	2.08E-02
ENSG00000081913	PHLPP1	0.055	2.08E-02
ENSG00000246082	NUDT16L2P	0.059	2.08E-02
ENSG00000130714	POMT1	-0.042	2.09E-02
ENSG00000076356	PLXNA2	0.087	2.09E-02
ENSG00000159884	CCDC107	-0.040	2.09E-02
ENSG00000148848	ADAM12	-0.163	2.09E-02
ENSG00000275708	MIR3648-1	-0.107	2.09E-02
ENSG00000185608	MRPL40	-0.060	2.10E-02
ENSG00000197540	GZMM	-0.067	2.10E-02
ENSG00000160791	CCR5	-0.067	2.10E-02
ENSG00000092201	SUPT16H	-0.020	2.11E-02
ENSG00000198898	CAPZA2	0.046	2.11E-02
ENSG00000126016	AMOT	-0.061	2.11E-02
ENSG00000273151	AC073957.3	0.057	2.11E-02
ENSG00000273344	PAXIP1-DT	-0.042	2.12E-02
ENSG00000212993	POU5F1B	-0.083	2.12E-02
ENSG00000100401	RANGAP1	-0.034	2.12E-02
ENSG00000267554	AC015911.7	-0.043	2.12E-02
ENSG00000136169	SETDB2	-0.029	2.12E-02
ENSG00000146054	TRIM7	0.090	2.12E-02
ENSG00000130717	UCK1	0.030	2.12E-02
ENSG00000104872	PIH1D1	-0.029	2.13E-02

ENSG00000186222	BLOC1S4	-0.033	2.13E-02
ENSG00000111875	ASF1A	-0.038	2.13E-02
ENSG00000258733	LINC02328	-0.057	2.13E-02
ENSG00000280138	AC027290.2	0.041	2.13E-02
ENSG00000100483	VCPKMT	0.033	2.14E-02
ENSG00000226383	LINC01876	-0.132	2.14E-02
ENSG00000235613	NSRP1P1	-0.067	2.14E-02
ENSG00000279600	AC015804.1	-0.084	2.14E-02
ENSG00000169621	APLF	-0.050	2.14E-02
ENSG00000254536	AL360181.3	-0.120	2.15E-02
ENSG00000169764	UGP2	0.020	2.15E-02
ENSG00000244115	DNAJC25-GNG10	0.073	2.15E-02
ENSG00000181192	DHTKD1	0.039	2.15E-02
ENSG00000117118	SDHB	0.023	2.15E-02
ENSG00000137221	TJAP1	-0.044	2.15E-02
ENSG00000211746	TRBV19	-0.066	2.15E-02
ENSG00000222112	RN7SKP16	0.089	2.15E-02
ENSG00000131876	SNRPA1	-0.034	2.15E-02
ENSG00000017797	RALBP1	0.041	2.15E-02
ENSG00000184903	IMMP2L	-0.061	2.15E-02
ENSG00000198874	TYW1	-0.044	2.15E-02
ENSG00000166881	NEMP1	-0.030	2.15E-02
ENSG00000197586	ENTPD6	-0.029	2.16E-02
ENSG00000118600	RXYLT1	-0.043	2.16E-02
ENSG00000120254	MTHFD1L	-0.075	2.16E-02
ENSG00000281183	NPTN-IT1	0.040	2.16E-02
ENSG00000131263	RLIM	0.023	2.16E-02
ENSG00000162614	NEXN	0.070	2.16E-02
ENSG00000167377	ZNF23	-0.059	2.17E-02
ENSG00000148303	RPL7A	-0.033	2.17E-02
ENSG00000138600	SPPL2A	0.025	2.17E-02
ENSG00000135926	TMBIM1	0.032	2.17E-02
ENSG00000105393	BABAM1	-0.050	2.17E-02
ENSG00000171823	FBXL14	-0.044	2.18E-02
ENSG00000069966	GNB5	-0.031	2.18E-02
ENSG00000149657	LSM14B	0.023	2.18E-02
ENSG00000100416	TRMU	-0.025	2.18E-02
ENSG00000213413	PVRIG	-0.061	2.19E-02
ENSG00000072736	NFATC3	-0.024	2.19E-02
ENSG00000014914	MTMR11	0.044	2.19E-02
ENSG00000286786	AC116158.3	-0.041	2.19E-02
ENSG00000226833	AC092164.1	0.051	2.20E-02
ENSG00000157600	TMEM164	0.062	2.20E-02
ENSG00000263072	ZNF213-AS1	-0.033	2.20E-02
ENSG00000102226	USP11	-0.049	2.20E-02
ENSG00000053524	MCF2L2	-0.070	2.20E-02
ENSG00000134851	TMEM165	0.028	2.21E-02

ENSG00000170113	NIPA1	-0.038	2.21E-02
ENSG00000248791	AC010627.1	0.056	2.21E-02
ENSG00000272625	AP000919.3	0.064	2.21E-02
ENSG00000228808	HMGB3P4	-0.065	2.21E-02
ENSG00000203667	COX20	-0.032	2.21E-02
ENSG00000105778	AVL9	0.024	2.21E-02
ENSG00000179981	TSHZ1	-0.036	2.21E-02
ENSG00000226711	FAM66C	-0.068	2.22E-02
ENSG00000130332	LSM7	-0.050	2.22E-02
ENSG00000137210	TMEM14B	-0.031	2.22E-02
ENSG00000239961	LILRA4	-0.109	2.22E-02
ENSG00000106804	C5	0.066	2.23E-02
ENSG00000160410	SHKBP1	0.051	2.23E-02
ENSG00000137185	ZSCAN9	0.033	2.24E-02
ENSG00000248559	AC109454.2	0.073	2.24E-02
ENSG00000278619	MRM1	-0.046	2.24E-02
ENSG00000280159	AC016583.1	0.080	2.24E-02
ENSG00000230735	AC093423.2	-0.085	2.24E-02
ENSG00000163995	ABLIM2	-0.083	2.24E-02
ENSG00000109689	STIM2	-0.027	2.25E-02
ENSG00000135597	REPS1	-0.030	2.25E-02
ENSG00000133316	WDR74	-0.043	2.25E-02
ENSG00000198721	ECI2	-0.032	2.25E-02
ENSG00000067057	PFKP	-0.043	2.25E-02
ENSG00000164022	AIMP1	-0.036	2.25E-02
ENSG00000148362	PAXX	-0.040	2.25E-02
ENSG00000138641	HERC3	0.031	2.25E-02
ENSG00000119242	CCDC92	-0.035	2.25E-02
ENSG00000071082	RPL31	-0.119	2.25E-02
ENSG00000181896	ZNF101	-0.031	2.25E-02
ENSG00000107959	PITRM1	-0.028	2.25E-02
ENSG00000141404	GNAL	0.120	2.25E-02
ENSG00000173482	PTPRM	-0.103	2.25E-02
ENSG00000226091	LINC00937	0.091	2.26E-02
ENSG00000148634	HERC4	0.025	2.26E-02
ENSG00000226240	LINC00381	-0.116	2.26E-02
ENSG00000279594	AL049780.3	-0.059	2.26E-02
ENSG00000188996	HUS1B	-0.089	2.26E-02
ENSG00000228903	RASA4CP	-0.086	2.26E-02
ENSG00000106443	PHF14	-0.035	2.27E-02
ENSG00000145287	PLAC8	-0.032	2.27E-02
ENSG00000168653	NDUFS5	-0.057	2.27E-02
ENSG00000176788	BASP1	0.069	2.27E-02
ENSG00000169718	DUS1L	-0.033	2.27E-02
ENSG00000085491	SLC25A24	0.030	2.27E-02
ENSG00000211662	IGLV3-21	0.129	2.27E-02
ENSG00000109654	TRIM2	-0.064	2.27E-02

ENSG00000119403	PHF19	-0.031	2.27E-02
ENSG00000205581	HMG1	-0.029	2.27E-02
ENSG00000101945	SUV39H1	-0.039	2.28E-02
ENSG00000287201	AC009682.1	0.102	2.29E-02
ENSG00000180221	TPT1P10	0.058	2.29E-02
ENSG00000169964	TMEM42	-0.043	2.29E-02
ENSG00000126945	HNRNP2	0.035	2.29E-02
ENSG00000198863	RUNDC1	0.026	2.29E-02
ENSG00000131943	C19orf12	-0.034	2.29E-02
ENSG00000104880	ARHGEF18	-0.028	2.29E-02
ENSG00000215158	AC138409.2	-0.036	2.30E-02
ENSG00000121691	CAT	0.046	2.30E-02
ENSG00000173153	ESRRA	0.030	2.30E-02
ENSG00000185920	PTCH1	-0.079	2.31E-02
ENSG00000265491	RNF115	-0.022	2.31E-02
ENSG00000172915	NBEA	-0.079	2.31E-02
ENSG00000120694	HSPH1	-0.036	2.31E-02
ENSG00000165795	NDRG2	-0.054	2.31E-02
ENSG00000141574	SECTM1	0.058	2.31E-02
ENSG00000174165	ZDHHC24	-0.035	2.31E-02
ENSG00000144161	ZC3H8	-0.053	2.31E-02
ENSG00000182782	HCAR2	0.061	2.32E-02
ENSG00000074319	TSG101	0.027	2.32E-02
ENSG00000196693	ZNF33B	-0.036	2.32E-02
ENSG00000168056	LTBP3	-0.065	2.32E-02
ENSG00000159267	HLCS	-0.048	2.32E-02
ENSG00000160051	IQCC	-0.071	2.32E-02
ENSG00000275371	AC012645.4	0.086	2.32E-02
ENSG00000131196	NFATC1	-0.052	2.32E-02
ENSG00000174607	UGT8	-0.081	2.32E-02
ENSG00000232533	AC093673.1	0.041	2.33E-02
ENSG00000197566	ZNF624	-0.046	2.33E-02
ENSG00000135074	ADAM19	0.040	2.33E-02
ENSG00000160014	CALM3	0.037	2.33E-02
ENSG00000245910	SNHG6	-0.044	2.34E-02
ENSG00000164430	CGAS	0.029	2.34E-02
ENSG00000235173	HGH1	-0.049	2.34E-02
ENSG00000104312	RIPK2	0.030	2.34E-02
ENSG00000185986	SDHAP3	-0.052	2.34E-02
ENSG00000259626	MTND3P12	0.089	2.34E-02
ENSG00000126368	NR1D1	-0.099	2.34E-02
ENSG00000259548	AC021483.1	0.090	2.34E-02
ENSG00000143951	WDPCP	-0.039	2.34E-02
ENSG00000093167	LRRFIP2	0.029	2.34E-02
ENSG00000166965	RCCD1	-0.062	2.34E-02
ENSG00000168803	ADAL	-0.056	2.34E-02
ENSG00000112195	TREML2	0.049	2.34E-02

ENSG00000153046	CDYL	-0.068	2.35E-02
ENSG00000257743	MGAM2	0.094	2.35E-02
ENSG00000068885	IFT80	-0.038	2.35E-02
ENSG00000157593	SLC35B2	-0.030	2.35E-02
ENSG00000074935	TUBE1	-0.041	2.35E-02
ENSG00000258168	AC025569.1	-0.180	2.35E-02
ENSG00000184226	PCDH9	-0.099	2.35E-02
ENSG00000257495	KRT73-AS1	-0.160	2.36E-02
ENSG00000165359	INTS6L	-0.021	2.36E-02
ENSG00000266947	AC022916.1	-0.049	2.36E-02
ENSG00000250130	GAPDHP43	0.040	2.37E-02
ENSG00000124875	CXCL6	0.117	2.37E-02
ENSG00000204764	RANBP17	-0.126	2.37E-02
ENSG00000100242	SUN2	-0.027	2.37E-02
ENSG00000118096	IFT46	-0.041	2.37E-02
ENSG00000108924	HLF	-0.117	2.37E-02
ENSG00000189159	JPT1	0.047	2.38E-02
ENSG00000286835	AL133477.1	-0.073	2.38E-02
ENSG00000287067	AC106791.3	-0.092	2.38E-02
ENSG00000148719	DNAJB12	0.028	2.38E-02
ENSG00000109917	ZPR1	-0.034	2.38E-02
ENSG00000123064	DDX54	-0.044	2.38E-02
ENSG00000170242	USP47	-0.029	2.39E-02
ENSG00000136999	CCN3	0.077	2.39E-02
ENSG00000175445	LPL	0.152	2.39E-02
ENSG00000241886	AC112496.1	0.075	2.39E-02
ENSG00000055483	USP36	-0.047	2.39E-02
ENSG00000101493	ZNF516	0.052	2.39E-02
ENSG00000239775	AC017116.1	0.098	2.39E-02
ENSG00000141295	SCRN2	-0.038	2.39E-02
ENSG00000006194	ZNF263	-0.024	2.40E-02
ENSG00000276023	DUSP14	-0.057	2.40E-02
ENSG00000270062	AL606834.2	0.049	2.40E-02
ENSG00000143748	NVL	-0.036	2.40E-02
ENSG00000186827	TNFRSF4	-0.089	2.40E-02
ENSG00000198825	INPP5F	-0.046	2.40E-02
ENSG00000143924	EML4	-0.022	2.40E-02
ENSG00000135622	SEMA4F	-0.066	2.40E-02
ENSG00000111674	ENO2	-0.045	2.41E-02
ENSG00000237217	AC008074.1	0.122	2.41E-02
ENSG00000235072	ARNILA	-0.101	2.41E-02
ENSG00000040275	SPDL1	-0.052	2.41E-02
ENSG00000185246	PRPF39	-0.035	2.41E-02
ENSG00000012048	BRCA1	0.050	2.41E-02
ENSG00000100784	RPS6KA5	0.036	2.42E-02
ENSG00000187231	SESTD1	0.050	2.42E-02
ENSG00000143353	LYPLAL1	0.035	2.42E-02

ENSG00000214248	AC010336.1	-0.086	2.42E-02
ENSG00000213625	LEPROT	0.039	2.42E-02
ENSG00000103154	NECAB2	0.126	2.42E-02
ENSG00000134574	DDB2	-0.034	2.43E-02
ENSG00000108666	C17orf75	-0.061	2.43E-02
ENSG00000282608	ADORA3	0.085	2.44E-02
ENSG00000124275	MTRR	-0.034	2.44E-02
ENSG00000089505	CMTM1	0.057	2.44E-02
ENSG00000152520	PAN3	0.031	2.45E-02
ENSG00000266389	AC002091.2	0.084	2.45E-02
ENSG00000120992	LYPLA1	0.023	2.45E-02
ENSG00000157306	ZFH2-AS1	-0.053	2.45E-02
ENSG00000170629	DPY19L2P2	-0.043	2.45E-02
ENSG00000178385	PLEKHM3	0.029	2.45E-02
ENSG00000258565	BLZF2P	0.073	2.45E-02
ENSG00000167840	ZNF232	-0.039	2.45E-02
ENSG00000150527	MIA2	0.021	2.45E-02
ENSG00000129810	SGO1	-0.093	2.46E-02
ENSG00000198690	FAN1	-0.037	2.46E-02
ENSG00000179271	GADD45GIP1	-0.047	2.46E-02
ENSG00000170425	ADORA2B	0.075	2.47E-02
ENSG00000246898	LINC00920	-0.075	2.47E-02
ENSG00000277701	AC159540.2	-0.043	2.47E-02
ENSG00000259330	INAFM2	0.037	2.47E-02
ENSG00000259804	AC027682.1	-0.075	2.47E-02
ENSG00000198718	TOGARAM1	-0.035	2.47E-02
ENSG00000226777	FAM30A	-0.084	2.47E-02
ENSG00000132122	SPATA6	0.068	2.47E-02
ENSG00000128245	YWHAH	0.036	2.47E-02
ENSG00000158552	ZFAND2B	0.026	2.47E-02
ENSG00000148334	PTGES2	-0.030	2.48E-02
ENSG00000144867	SRPRB	-0.039	2.48E-02
ENSG00000159322	ADPGK	0.019	2.48E-02
ENSG00000117643	MAN1C1	-0.052	2.48E-02
ENSG00000129187	DCTD	-0.025	2.48E-02
ENSG00000124602	UNC5CL	-0.052	2.48E-02
ENSG00000173272	MZT2A	-0.055	2.48E-02
ENSG00000115042	FAHD2A	-0.039	2.49E-02
ENSG00000152766	ANKRD22	0.108	2.49E-02
ENSG00000144848	ATG3	0.030	2.49E-02
ENSG00000163468	CCT3	-0.024	2.49E-02
ENSG00000127415	IDUA	-0.062	2.49E-02
ENSG00000166169	POLL	-0.055	2.49E-02
ENSG00000103494	RPGRIP1L	-0.062	2.50E-02
ENSG00000046651	OFD1	-0.034	2.50E-02
ENSG00000143458	GABPB2	-0.031	2.50E-02
ENSG00000177932	ZNF354C	-0.046	2.50E-02

ENSG00000114054	PCCB	-0.029	2.50E-02
ENSG00000182165	TP53TG1	-0.051	2.50E-02
ENSG00000158805	ZNF276	-0.022	2.50E-02
ENSG00000109762	SNX25	-0.051	2.51E-02
ENSG00000267263	AC111170.2	-0.109	2.51E-02
ENSG00000072518	MARK2	0.050	2.51E-02
ENSG00000111737	RAB35	0.029	2.51E-02
ENSG00000158863	FAM160B2	-0.051	2.51E-02
ENSG00000101307	SIRPB1	0.060	2.51E-02
ENSG00000198734	F5	0.067	2.51E-02
ENSG00000239437	RN7SL752P	0.075	2.52E-02
ENSG00000198216	CACNA1E	0.089	2.52E-02
ENSG00000170089	AC106795.1	-0.054	2.52E-02
ENSG00000156482	RPL30	-0.058	2.52E-02
ENSG00000275004	ZNF280B	-0.056	2.52E-02
ENSG00000173193	PARP14	0.054	2.52E-02
ENSG00000280149	AC004877.2	-0.071	2.53E-02
ENSG00000250548	LINC01303	0.131	2.53E-02
ENSG00000090316	MAEA	0.030	2.53E-02
ENSG00000125743	SNRPD2	-0.062	2.53E-02
ENSG00000168090	COPS6	-0.023	2.53E-02
ENSG00000085788	DDHD2	-0.033	2.53E-02
ENSG00000023516	AKAP11	-0.024	2.53E-02
ENSG00000117298	ECE1	0.045	2.53E-02
ENSG00000177628	GBA	0.039	2.53E-02
ENSG00000259429	UBE2Q2P2	-0.088	2.53E-02
ENSG00000196782	MAML3	0.050	2.53E-02
ENSG00000115756	HPCAL1	0.041	2.53E-02
ENSG00000196150	ZNF250	-0.046	2.53E-02
ENSG00000183431	SF3A3	-0.026	2.53E-02
ENSG00000152377	SPOCK1	0.135	2.53E-02
ENSG00000214717	ZBED1	0.032	2.54E-02
ENSG00000165813	CCDC186	0.030	2.54E-02
ENSG00000267121	AC008105.2	0.031	2.55E-02
ENSG00000175893	ZDHHC21	-0.039	2.55E-02
ENSG00000269578	AC008764.7	-0.100	2.55E-02
ENSG00000152763	DNAI4	-0.135	2.55E-02
ENSG00000174738	NR1D2	-0.033	2.55E-02
ENSG00000182307	C8orf33	-0.024	2.55E-02
ENSG00000185338	SOCS1	0.083	2.55E-02
ENSG00000171860	C3AR1	0.066	2.55E-02
ENSG00000164096	C4orf3	0.030	2.55E-02
ENSG00000104447	TRPS1	0.029	2.55E-02
ENSG00000178038	ALS2CL	-0.061	2.56E-02
ENSG00000078687	TNRC6C	-0.048	2.56E-02
ENSG00000160271	RALGDS	-0.039	2.56E-02
ENSG00000231621	ANKRD44-AS1	-0.106	2.56E-02

ENSG00000103326	CAPN15	-0.047	2.56E-02
ENSG00000181929	PRKAG1	0.023	2.56E-02
ENSG00000234353	AP000346.2	0.109	2.56E-02
ENSG00000146223	RPL7L1	-0.025	2.56E-02
ENSG00000147324	MFHAS1	-0.037	2.57E-02
ENSG00000157540	DYRK1A	0.019	2.57E-02
ENSG00000140538	NTRK3	0.186	2.57E-02
ENSG00000257433	AC004241.1	0.049	2.57E-02
ENSG00000213722	DDAH2	0.037	2.57E-02
ENSG00000164284	GRPEL2	-0.034	2.57E-02
ENSG00000074527	NTN4	-0.137	2.58E-02
ENSG00000171812	COL8A2	0.072	2.58E-02
ENSG00000160213	CSTB	0.035	2.59E-02
ENSG00000165684	SNAPC4	-0.049	2.59E-02
ENSG00000214706	IFRD2	-0.044	2.59E-02
ENSG00000182108	DEXI	-0.035	2.60E-02
ENSG00000285417	BX571818.1	-0.069	2.60E-02
ENSG00000159231	CBR3	-0.093	2.60E-02
ENSG00000286707	AC010896.1	-0.060	2.60E-02
ENSG00000151650	VENTX	0.063	2.61E-02
ENSG00000132005	RFX1	0.088	2.61E-02
ENSG00000112293	GPLD1	-0.094	2.61E-02
ENSG00000213246	SUPT4H1	0.031	2.62E-02
ENSG00000171223	JUNB	0.042	2.62E-02
ENSG00000109861	CTSC	0.028	2.62E-02
ENSG00000259651	MTCO3P23	0.089	2.62E-02
ENSG00000228427	AL590764.1	-0.048	2.62E-02
ENSG00000157800	SLC37A3	0.050	2.62E-02
ENSG00000072062	PRKACA	0.049	2.62E-02
ENSG00000196912	ANKRD36B	-0.044	2.62E-02
ENSG00000106479	ZNF862	-0.033	2.62E-02
ENSG00000134853	PDGFRA	0.173	2.62E-02
ENSG00000171960	PPIH	-0.031	2.63E-02
ENSG00000253616	AC107959.3	0.070	2.63E-02
ENSG00000112425	EPM2A	-0.045	2.63E-02
ENSG00000090447	TFAP4	-0.050	2.64E-02
ENSG00000182057	OGFRP1	-0.060	2.64E-02
ENSG00000175573	C11orf68	0.033	2.64E-02
ENSG00000166199	ALKBH3	-0.038	2.64E-02
ENSG00000116396	KCNC4	-0.073	2.64E-02
ENSG00000123472	ATPAF1	-0.025	2.64E-02
ENSG00000166825	ANPEP	0.074	2.64E-02
ENSG00000240891	PLCXD2	-0.037	2.64E-02
ENSG00000186594	MIR22HG	0.040	2.64E-02
ENSG00000234323	LINC01505	-0.108	2.65E-02
ENSG00000104626	ERI1	0.028	2.65E-02
ENSG00000171522	PTGER4	0.028	2.65E-02

ENSG00000112796	ENPP5	-0.074	2.65E-02
ENSG00000137038	DMAC1	-0.054	2.66E-02
ENSG00000170919	TPT1-AS1	-0.039	2.66E-02
ENSG00000095585	BLNK	-0.074	2.66E-02
ENSG00000234389	AC007278.1	0.091	2.66E-02
ENSG00000171595	DNAI2	-0.111	2.66E-02
ENSG00000148219	ASTN2	-0.047	2.66E-02
ENSG00000265817	FSBP	-0.068	2.66E-02
ENSG00000109184	DCUN1D4	-0.039	2.67E-02
ENSG00000184788	SATL1	0.094	2.67E-02
ENSG00000211801	TRAV21	-0.066	2.67E-02
ENSG00000125910	S1PR4	0.037	2.67E-02
ENSG00000126767	ELK1	-0.029	2.67E-02
ENSG00000135077	HAVCR2	0.038	2.67E-02
ENSG00000104980	TIMM44	-0.036	2.67E-02
ENSG00000197256	KANK2	-0.116	2.68E-02
ENSG00000114686	MRPL3	-0.039	2.68E-02
ENSG00000261072	AC084783.1	-0.058	2.68E-02
ENSG00000241014	GPR199P	-0.150	2.68E-02
ENSG00000082516	GEMIN5	-0.032	2.68E-02
ENSG00000175197	DDIT3	0.039	2.68E-02
ENSG00000185697	MYBL1	-0.060	2.68E-02
ENSG00000167985	SDHAF2	0.020	2.69E-02
ENSG00000188649	CC2D2B	0.092	2.70E-02
ENSG00000099331	MYO9B	0.039	2.70E-02
ENSG00000236008	LINC01814	0.064	2.70E-02
ENSG00000091972	CD200	-0.089	2.71E-02
ENSG00000175567	UCP2	-0.049	2.71E-02
ENSG00000225972	MTND1P23	0.217	2.71E-02
ENSG00000125944	HNRNPR	-0.025	2.71E-02
ENSG00000178234	GALNT11	-0.027	2.72E-02
ENSG00000067533	RRP15	-0.058	2.72E-02
ENSG00000197969	VPS13A	-0.035	2.73E-02
ENSG00000258441	LINC00641	0.024	2.73E-02
ENSG00000139737	SLAIN1	-0.037	2.73E-02
ENSG00000070061	ELP1	-0.021	2.74E-02
ENSG00000228097	MTATP6P11	0.080	2.74E-02
ENSG00000250673	REELD1	-0.109	2.74E-02
ENSG00000154309	DISP1	-0.046	2.74E-02
ENSG00000145782	ATG12	0.022	2.74E-02
ENSG00000084774	CAD	-0.062	2.76E-02
ENSG00000125901	MRPS26	-0.034	2.76E-02
ENSG00000269919	AL022067.1	0.074	2.76E-02
ENSG00000269925	Z98884.2	0.067	2.76E-02
ENSG00000107036	RIC1	0.023	2.76E-02
ENSG00000168036	CTNNB1	0.015	2.76E-02
ENSG00000196505	GDAP2	0.024	2.76E-02

ENSG00000228801	AC064807.1	-0.065	2.77E-02
ENSG00000116584	ARHGEF2	0.027	2.77E-02
ENSG00000131558	EXOC4	-0.025	2.77E-02
ENSG00000146826	MAP11	0.036	2.77E-02
ENSG00000205683	DPF3	-0.098	2.77E-02
ENSG00000168495	POLR3D	-0.044	2.77E-02
ENSG00000153975	ZUP1	-0.037	2.77E-02
ENSG00000279425	AC092279.2	-0.053	2.78E-02
ENSG00000240291	AL450384.2	-0.062	2.78E-02
ENSG00000132361	CLUH	-0.075	2.78E-02
ENSG00000111679	PTPN6	0.033	2.78E-02
ENSG00000089818	NECAP1	0.019	2.78E-02
ENSG00000182774	RPS17	-0.088	2.78E-02
ENSG00000114770	ABCC5	0.036	2.78E-02
ENSG00000173456	RNF26	-0.047	2.78E-02
ENSG00000250790	AC127070.2	-0.092	2.79E-02
ENSG00000171827	ZNF570	-0.043	2.79E-02
ENSG00000112667	DNPH1	-0.055	2.79E-02
ENSG00000279943	FLJ38576	-0.070	2.79E-02
ENSG00000075275	CELSR1	-0.116	2.79E-02
ENSG00000171608	PIK3CD	0.036	2.79E-02
ENSG00000160299	PCNT	-0.047	2.79E-02
ENSG00000286482	AL117344.2	-0.038	2.79E-02
ENSG00000136305	CIDEB	0.035	2.80E-02
ENSG00000144034	TPRKB	-0.046	2.80E-02
ENSG00000078804	TP53INP2	0.088	2.80E-02
ENSG00000164134	NAA15	-0.035	2.80E-02
ENSG00000236618	PITPNA-AS1	-0.066	2.80E-02
ENSG00000126790	L3HYPDH	-0.036	2.80E-02
ENSG00000146674	IGFBP3	-0.078	2.80E-02
ENSG00000196428	TSC22D2	0.034	2.81E-02
ENSG00000127952	STYXL1	0.037	2.82E-02
ENSG00000134709	HOOK1	-0.068	2.82E-02
ENSG00000070476	ZXDC	0.022	2.82E-02
ENSG00000173163	COMMD1	-0.029	2.82E-02
ENSG00000134516	DOCK2	0.027	2.83E-02
ENSG00000196504	PRPF40A	0.023	2.83E-02
ENSG00000278090	LUNAR1	0.088	2.83E-02
ENSG00000154330	PGM5	0.154	2.84E-02
ENSG00000226328	NUP50-DT	0.043	2.84E-02
ENSG00000279077	AC023090.2	-0.046	2.84E-02
ENSG00000144182	LIPT1	-0.048	2.85E-02
ENSG00000144120	TMEM177	-0.047	2.85E-02
ENSG00000255717	SNHG1	-0.034	2.86E-02
ENSG00000128731	HERC2	-0.048	2.86E-02
ENSG00000137713	PPP2R1B	-0.025	2.86E-02
ENSG00000175575	PAAF1	-0.031	2.87E-02

ENSG00000279662	AC131649.2	0.067	2.87E-02
ENSG00000146828	SLC12A9	0.038	2.87E-02
ENSG00000197714	ZNF460	-0.017	2.87E-02
ENSG00000168283	BMI1	-0.038	2.87E-02
ENSG00000166432	ZMAT1	-0.034	2.88E-02
ENSG00000256223	ZNF10	-0.048	2.88E-02
ENSG00000130159	ECSIT	-0.050	2.88E-02
ENSG00000006634	DBF4	-0.042	2.88E-02
ENSG00000232677	LINC00665	-0.073	2.88E-02
ENSG00000184056	VPS33B	-0.042	2.88E-02
ENSG00000204410	MSH5	-0.057	2.88E-02
ENSG00000180938	ZNF572	-0.052	2.88E-02
ENSG00000261996	AC004706.1	-0.073	2.88E-02
ENSG00000104549	SQLE	-0.048	2.88E-02
ENSG00000279416	AC099689.1	-0.081	2.89E-02
ENSG00000104375	STK3	0.046	2.89E-02
ENSG00000149308	NPAT	-0.020	2.89E-02
ENSG00000280392	AC007496.3	-0.072	2.89E-02
ENSG00000214189	ZNF788P	0.116	2.89E-02
ENSG00000181409	AATK	0.073	2.89E-02
ENSG00000070770	CSNK2A2	-0.026	2.91E-02
ENSG00000225300	AL591623.1	-0.052	2.91E-02
ENSG00000171291	ZNF439	-0.043	2.92E-02
ENSG00000164172	MOCS2	-0.043	2.92E-02
ENSG00000138964	PARVG	0.023	2.92E-02
ENSG00000175857	GAPT	0.045	2.92E-02
ENSG00000085433	WDR47	0.030	2.92E-02
ENSG00000115073	ACTR1B	-0.024	2.92E-02
ENSG00000260948	AL390195.2	-0.060	2.92E-02
ENSG00000156469	MTERF3	-0.039	2.92E-02
ENSG00000188211	NCR3LG1	-0.050	2.93E-02
ENSG00000120437	ACAT2	-0.036	2.93E-02
ENSG00000137760	ALKBH8	-0.035	2.93E-02
ENSG00000162194	LBHD1	-0.039	2.93E-02
ENSG00000114541	FRMD4B	0.041	2.93E-02
ENSG00000114745	GORASP1	0.029	2.93E-02
ENSG00000163421	PROK2	0.072	2.94E-02
ENSG00000124575	H1-3	-0.043	2.94E-02
ENSG00000107957	SH3PXD2A	-0.053	2.94E-02
ENSG00000144724	PTPRG	-0.143	2.94E-02
ENSG00000171490	RSL1D1	-0.038	2.94E-02
ENSG00000281128	PTENP1-AS	0.131	2.95E-02
ENSG00000156467	UQCRB	-0.080	2.95E-02
ENSG00000100220	RTCB	-0.026	2.95E-02
ENSG00000164171	ITGA2	0.095	2.95E-02
ENSG00000184924	PTRHD1	-0.061	2.95E-02
ENSG00000262576	PCDHGA4	-0.122	2.95E-02

ENSG00000278311	GGNBP2	0.018	2.95E-02
ENSG00000101842	VSIG1	-0.063	2.95E-02
ENSG00000272391	POM121C	-0.047	2.96E-02
ENSG00000135317	SNX14	0.026	2.96E-02
ENSG00000166136	NDUFB8	-0.025	2.97E-02
ENSG00000105967	TFEC	0.050	2.97E-02
ENSG00000240065	PSMB9	0.036	2.98E-02
ENSG00000147419	CCDC25	-0.036	2.98E-02
ENSG00000139842	CUL4A	-0.033	2.98E-02
ENSG00000211810	TRAV29DV5	-0.070	2.99E-02
ENSG00000005059	MCUB	-0.033	2.99E-02
ENSG00000062282	DGAT2	0.057	2.99E-02
ENSG00000070413	DGCR2	0.032	2.99E-02
ENSG00000240344	PPIL3	-0.050	2.99E-02
ENSG00000198911	SREBF2	-0.049	2.99E-02
ENSG00000254093	PINX1	-0.046	2.99E-02
ENSG00000148120	AOPEP	-0.036	3.00E-02
ENSG00000179151	EDC3	-0.046	3.00E-02
ENSG00000186818	LILRB4	0.053	3.00E-02
ENSG00000119707	RBM25	0.019	3.00E-02
ENSG00000173540	GMPPB	-0.029	3.00E-02
ENSG00000001497	LAS1L	-0.031	3.00E-02
ENSG00000213741	RPS29	-0.078	3.00E-02
ENSG00000099901	RANBP1	-0.032	3.00E-02
ENSG00000177707	NECTIN3	-0.073	3.00E-02
ENSG00000088812	ATRN	-0.022	3.00E-02
ENSG00000280181	AC025262.1	0.060	3.01E-02
ENSG00000138767	CNOT6L	-0.019	3.01E-02
ENSG00000132305	IMMT	-0.023	3.02E-02
ENSG00000002016	RAD52	-0.045	3.02E-02
ENSG00000287935	AC136297.1	0.088	3.02E-02
ENSG00000238228	OR7E7P	-0.063	3.02E-02
ENSG00000103047	TANGO6	-0.036	3.03E-02
ENSG00000092010	PSME1	0.029	3.03E-02
ENSG00000177548	RABEP2	-0.042	3.03E-02
ENSG00000176476	SGF29	-0.036	3.03E-02
ENSG00000115718	PROC	0.120	3.03E-02
ENSG00000180228	PRKRA	-0.026	3.03E-02
ENSG00000197497	ZNF665	-0.075	3.04E-02
ENSG00000279792	AC015909.5	-0.057	3.04E-02
ENSG00000171843	MLLT3	-0.038	3.04E-02
ENSG00000267348	GEMIN7-AS1	-0.099	3.04E-02
ENSG00000126249	PDCD2L	-0.064	3.04E-02
ENSG00000102882	MAPK3	0.042	3.05E-02
ENSG00000167635	ZNF146	-0.033	3.05E-02
ENSG00000241490	AC093010.1	-0.056	3.05E-02
ENSG00000173327	MAP3K11	0.037	3.06E-02

ENSG00000113749	HRH2	0.058	3.06E-02
ENSG00000099899	TRMT2A	-0.036	3.06E-02
ENSG00000037474	NSUN2	-0.021	3.06E-02
ENSG00000136861	CDK5RAP2	-0.032	3.06E-02
ENSG00000121064	SCPEP1	0.034	3.06E-02
ENSG00000141646	SMAD4	0.019	3.06E-02
ENSG00000102054	RBBP7	-0.024	3.06E-02
ENSG00000266923	AC063949.2	-0.222	3.06E-02
ENSG00000111602	TIMELESS	-0.041	3.06E-02
ENSG00000247596	TWF2	0.033	3.07E-02
ENSG00000174945	AMZ1	-0.105	3.07E-02
ENSG00000089157	RPLP0	-0.044	3.07E-02
ENSG00000154429	CCSAP	0.031	3.07E-02
ENSG00000132912	DCTN4	0.025	3.08E-02
ENSG00000198131	ZNF544	-0.038	3.08E-02
ENSG00000072195	SPEG	-0.129	3.08E-02
ENSG00000141367	CLTC	0.031	3.08E-02
ENSG00000117133	RPF1	-0.035	3.08E-02
ENSG00000171643	S100Z	0.050	3.08E-02
ENSG00000162851	TFB2M	-0.040	3.09E-02
ENSG00000135521	LTV1	-0.034	3.09E-02
ENSG00000129422	MTUS1	-0.108	3.09E-02
ENSG00000196363	WDR5	-0.031	3.09E-02
ENSG00000160209	PDXK	0.033	3.09E-02
ENSG00000161835	TAMALIN	-0.067	3.09E-02
ENSG00000152684	PELO	0.039	3.10E-02
ENSG00000108312	UBTF	-0.021	3.10E-02
ENSG00000164338	UTP15	-0.040	3.10E-02
ENSG00000122026	RPL21	-0.072	3.10E-02
ENSG00000165490	DDIAS	0.056	3.10E-02
ENSG00000170502	NUDT9	-0.047	3.10E-02
ENSG00000170846	AC093323.1	-0.036	3.11E-02
ENSG00000269893	SNHG8	-0.078	3.12E-02
ENSG00000244198	ARHGEF35-AS1	-0.059	3.12E-02
ENSG00000259834	AL365361.1	-0.034	3.12E-02
ENSG00000159314	ARHGAP27	0.034	3.12E-02
ENSG00000107485	GATA3	-0.051	3.12E-02
ENSG00000213920	MDP1	-0.062	3.12E-02
ENSG00000112514	CUTA	-0.031	3.12E-02
ENSG00000123427	EEF1AKMT3	-0.070	3.12E-02
ENSG00000181652	ATG9B	-0.106	3.12E-02
ENSG00000285756	BX890604.1	-0.071	3.13E-02
ENSG00000197857	ZNF44	-0.028	3.13E-02
ENSG00000100330	MTMR3	0.040	3.14E-02
ENSG00000178229	ZNF543	-0.030	3.14E-02
ENSG00000004487	KDM1A	-0.024	3.15E-02
ENSG00000259577	CERNA1	-0.072	3.15E-02

ENSG00000164818	DNAAF5	-0.048	3.15E-02
ENSG00000163449	TMEM169	0.042	3.15E-02
ENSG00000182899	RPL35A	-0.062	3.15E-02
ENSG00000287126	AC108488.3	0.104	3.15E-02
ENSG00000214688	C10orf105	0.072	3.16E-02
ENSG00000123575	FAM199X	0.016	3.16E-02
ENSG00000215022	AL008729.1	0.067	3.16E-02
ENSG00000197386	HTT	-0.040	3.16E-02
ENSG00000266844	AC093330.1	-0.088	3.17E-02
ENSG00000167716	WDR81	-0.039	3.17E-02
ENSG00000284419	MIR663A	-0.087	3.17E-02
ENSG00000176170	SPHK1	0.062	3.17E-02
ENSG00000186047	DLEU7	0.075	3.17E-02
ENSG00000134759	ELP2	-0.028	3.18E-02
ENSG00000261754	AC008555.1	-0.067	3.18E-02
ENSG00000277209	RPPH1	0.075	3.18E-02
ENSG00000229473	RGS17P1	0.043	3.18E-02
ENSG00000106392	C1GALT1	0.029	3.18E-02
ENSG00000140391	TSPAN3	-0.040	3.18E-02
ENSG00000184307	ZDHHC23	-0.049	3.18E-02
ENSG00000185024	BRF1	-0.031	3.18E-02
ENSG00000260473	AC068987.2	-0.079	3.19E-02
ENSG00000248019	FAM13A-AS1	0.036	3.19E-02
ENSG00000115935	WIPF1	0.037	3.19E-02
ENSG00000204136	GGTA1	0.068	3.19E-02
ENSG00000149582	TMEM25	-0.062	3.19E-02
ENSG00000105486	LIG1	-0.047	3.19E-02
ENSG00000142192	APP	0.035	3.20E-02
ENSG00000145916	RMND5B	-0.028	3.20E-02
ENSG00000064932	SBNO2	0.053	3.20E-02
ENSG00000213876	RPL7AP64	0.051	3.20E-02
ENSG00000244607	CCDC13	0.084	3.20E-02
ENSG00000123124	WWP1	-0.029	3.20E-02
ENSG00000158793	NIT1	0.022	3.21E-02
ENSG00000196369	SRGAP2B	0.062	3.21E-02
ENSG00000037749	MFAP3	0.021	3.21E-02
ENSG00000230551	AC021078.1	0.028	3.21E-02
ENSG00000213639	PPP1CB	0.028	3.21E-02
ENSG00000255198	SNHG9	-0.071	3.21E-02
ENSG00000253200	AC037459.2	0.033	3.21E-02
ENSG00000140939	NOL3	0.074	3.22E-02
ENSG00000280381	AC026362.2	-0.078	3.22E-02
ENSG00000064607	SUGP2	-0.024	3.22E-02
ENSG00000101079	NDRG3	0.023	3.22E-02
ENSG00000140368	PSTPIP1	0.031	3.22E-02
ENSG00000164081	TEX264	-0.030	3.22E-02
ENSG00000168827	GFM1	-0.026	3.23E-02

ENSG00000111788	AC009533.1	-0.100	3.23E-02
ENSG00000089327	FXYD5	-0.029	3.23E-02
ENSG00000124614	RPS10	-0.062	3.23E-02
ENSG00000134899	ERCC5	-0.020	3.23E-02
ENSG00000127507	ADGRE2	0.057	3.24E-02
ENSG00000127483	HP1BP3	-0.020	3.24E-02
ENSG00000090470	PDCD7	-0.032	3.24E-02
ENSG00000279884	AC010894.4	0.058	3.24E-02
ENSG00000006695	COX10	-0.033	3.25E-02
ENSG00000115267	IFIH1	0.051	3.25E-02
ENSG00000119514	GALNT12	-0.051	3.25E-02
ENSG00000110711	AIP	-0.030	3.26E-02
ENSG00000106608	URGCP	-0.036	3.26E-02
ENSG00000143297	FCRL5	-0.109	3.26E-02
ENSG00000116521	SCAMP3	-0.028	3.27E-02
ENSG00000180891	CUEDC1	0.051	3.27E-02
ENSG00000186104	CYP2R1	-0.031	3.28E-02
ENSG00000038358	EDC4	-0.040	3.28E-02
ENSG00000268362	AC092279.1	-0.038	3.28E-02
ENSG00000205930	C21orf62-AS1	-0.046	3.28E-02
ENSG00000177034	MTX3	-0.031	3.29E-02
ENSG00000127337	YEATS4	-0.057	3.29E-02
ENSG00000143633	C1orf131	-0.029	3.29E-02
ENSG00000279199	AC068669.1	0.084	3.29E-02
ENSG00000163956	LRPAP1	0.035	3.29E-02
ENSG00000069702	TGFBR3	-0.063	3.30E-02
ENSG00000169446	MMGT1	0.025	3.30E-02
ENSG00000142534	RPS11	-0.038	3.31E-02
ENSG00000215374	FAM66B	-0.068	3.31E-02
ENSG00000104529	EEF1D	-0.033	3.31E-02
ENSG00000121350	PYROXD1	-0.036	3.31E-02
ENSG00000175455	CCDC14	-0.032	3.31E-02
ENSG00000203791	EEF1AKMT2	-0.040	3.31E-02
ENSG00000138738	PRDM5	0.092	3.31E-02
ENSG00000068796	KIF2A	-0.022	3.32E-02
ENSG00000212694	LINC01089	-0.029	3.32E-02
ENSG00000189423	USP32P3	0.055	3.32E-02
ENSG00000149084	HSD17B12	0.030	3.32E-02
ENSG00000278829	AC099811.5	0.034	3.32E-02
ENSG00000142186	SCYL1	0.031	3.32E-02
ENSG00000253438	PCAT1	-0.050	3.32E-02
ENSG00000147010	SH3KBP1	0.023	3.32E-02
ENSG00000112367	FIG4	0.024	3.32E-02
ENSG00000138326	RPS24	-0.078	3.32E-02
ENSG00000226124	FTCDNL1	-0.065	3.32E-02
ENSG00000061794	MRPS35	-0.033	3.32E-02
ENSG00000196653	ZNF502	-0.068	3.33E-02

ENSG0000060558	GNA15	0.041	3.34E-02
ENSG00000130349	MTRES1	-0.038	3.35E-02
ENSG00000272711	HK2-DT	-0.070	3.35E-02
ENSG00000121579	NAA50	0.021	3.35E-02
ENSG0000028310	BRD9	-0.021	3.35E-02
ENSG00000164587	RPS14	-0.048	3.35E-02
ENSG00000181218	H2AW	-0.061	3.36E-02
ENSG00000267526	AC005702.2	-0.091	3.36E-02
ENSG00000100422	CERK	-0.019	3.36E-02
ENSG00000237037	NDUFA6-DT	-0.047	3.36E-02
ENSG00000125351	UPF3B	-0.033	3.36E-02
ENSG00000141127	PRPSAP2	-0.027	3.37E-02
ENSG00000246067	RAB30-DT	-0.027	3.37E-02
ENSG00000239523	MYLK-AS1	-0.037	3.38E-02
ENSG00000253409	TRBV7-4	-0.097	3.38E-02
ENSG00000138443	ABI2	-0.040	3.39E-02
ENSG00000188897	AC099489.1	0.077	3.39E-02
ENSG00000132341	RAN	-0.030	3.40E-02
ENSG00000198089	SFI1	-0.037	3.40E-02
ENSG00000111358	GTF2H3	-0.035	3.40E-02
ENSG00000197713	RPE	-0.022	3.40E-02
ENSG00000260286	ARMH2	0.066	3.40E-02
ENSG00000189136	UBE2Q2P1	-0.075	3.40E-02
ENSG00000124532	MRS2	-0.025	3.41E-02
ENSG00000104267	CA2	0.079	3.41E-02
ENSG00000159339	PADI4	0.066	3.41E-02
ENSG00000155629	PIK3AP1	0.036	3.41E-02
ENSG00000118495	PLAGL1	0.053	3.41E-02
ENSG00000139547	RDH16	-0.074	3.41E-02
ENSG00000276289	KCNE1B	0.173	3.42E-02
ENSG00000153898	MCOLN2	-0.064	3.42E-02
ENSG00000159733	ZFYVE28	-0.049	3.43E-02
ENSG00000092094	OSGEP	-0.024	3.43E-02
ENSG00000281808	AL355987.6	0.160	3.43E-02
ENSG00000224536	AC096677.1	-0.064	3.43E-02
ENSG00000159479	MED8	0.017	3.44E-02
ENSG00000277449	CEBPB-AS1	0.071	3.44E-02
ENSG00000181634	TNFSF15	0.091	3.44E-02
ENSG00000165434	PGM2L1	-0.042	3.44E-02
ENSG00000286288	AL109809.4	0.070	3.44E-02
ENSG00000110448	CD5	-0.048	3.44E-02
ENSG00000254531	FLJ20021	0.076	3.45E-02
ENSG00000267787	AC027097.2	-0.036	3.45E-02
ENSG00000166562	SEC11C	-0.046	3.46E-02
ENSG00000129484	PARP2	-0.045	3.47E-02
ENSG00000196565	HBG2	-0.241	3.48E-02
ENSG00000228705	LINC00659	0.092	3.48E-02

ENSG00000114446	IFT57	-0.053	3.49E-02
ENSG00000186566	GPATCH8	-0.025	3.49E-02
ENSG00000165905	LARGE2	-0.094	3.49E-02
ENSG00000168005	SPINDOC	-0.053	3.50E-02
ENSG00000188522	FAM83G	-0.048	3.50E-02
ENSG00000151353	TMEM18	-0.032	3.51E-02
ENSG00000138081	FBXO11	0.023	3.51E-02
ENSG00000137504	CREBZF	-0.023	3.51E-02
ENSG00000122335	SERAC1	0.033	3.52E-02
ENSG00000182199	SHMT2	-0.031	3.53E-02
ENSG00000164821	DEFA4	0.152	3.53E-02
ENSG00000249096	LINC02362	0.060	3.53E-02
ENSG00000108384	RAD51C	-0.049	3.54E-02
ENSG00000279330	AJ003147.3	0.041	3.54E-02
ENSG00000254788	CKLF-CMTM1	0.071	3.54E-02
ENSG00000169714	CNBP	0.019	3.54E-02
ENSG00000131446	MGAT1	0.021	3.54E-02
ENSG00000087263	OGFOD1	-0.033	3.54E-02
ENSG00000031698	SARS1	-0.016	3.54E-02
ENSG00000073536	NLE1	-0.050	3.54E-02
ENSG00000287778	AC006230.1	-0.086	3.54E-02
ENSG00000163806	SPDYA	0.051	3.55E-02
ENSG00000115084	SLC35F5	0.024	3.55E-02
ENSG00000233178	AL161457.2	-0.051	3.55E-02
ENSG00000162384	CZIB	-0.022	3.55E-02
ENSG00000071967	CYBRD1	0.050	3.55E-02
ENSG00000184508	HDDC3	-0.032	3.55E-02
ENSG00000065183	WDR3	-0.038	3.55E-02
ENSG00000213057	C1orf220	-0.073	3.55E-02
ENSG00000279913	AP001962.1	0.065	3.56E-02
ENSG00000125124	BBS2	-0.038	3.56E-02
ENSG00000137261	KIAA0319	0.074	3.56E-02
ENSG00000286327	AL035427.2	-0.053	3.57E-02
ENSG00000279608	AL353795.3	0.045	3.57E-02
ENSG00000135218	CD36	0.046	3.57E-02
ENSG00000109475	RPL34	-0.117	3.57E-02
ENSG00000231113	AL035587.1	0.041	3.57E-02
ENSG00000215712	TMEM242	-0.031	3.57E-02
ENSG00000128656	CHN1	-0.075	3.57E-02
ENSG00000070814	TCOF1	-0.035	3.58E-02
ENSG00000256188	TAS2R30	-0.043	3.58E-02
ENSG00000261560	AC007216.3	-0.077	3.58E-02
ENSG00000176371	ZSCAN2	-0.037	3.58E-02
ENSG00000109458	GAB1	0.054	3.58E-02
ENSG00000112208	BAG2	-0.040	3.58E-02
ENSG00000073734	ABCB11	0.186	3.58E-02
ENSG00000251259	AC004069.1	0.075	3.58E-02

ENSG00000212743	LINC02656	0.071	3.59E-02
ENSG00000131471	AOC3	0.087	3.59E-02
ENSG00000168389	MFSD2A	0.057	3.59E-02
ENSG00000095002	MSH2	-0.033	3.60E-02
ENSG00000161980	POLR3K	-0.034	3.60E-02
ENSG00000155659	VSIG4	0.093	3.60E-02
ENSG00000117475	BLZF1	0.026	3.60E-02
ENSG00000107815	TWNK	-0.046	3.61E-02
ENSG00000076351	SLC46A1	-0.065	3.61E-02
ENSG00000141429	GALNT1	0.031	3.61E-02
ENSG00000128050	PAICS	-0.036	3.61E-02
ENSG00000088876	ZNF343	-0.032	3.61E-02
ENSG00000168702	LRP1B	-0.150	3.61E-02
ENSG00000171861	MRM3	-0.034	3.61E-02
ENSG00000250318	AC003072.1	0.070	3.62E-02
ENSG00000259600	AC066616.2	0.079	3.62E-02
ENSG00000158887	MPZ	0.046	3.62E-02
ENSG00000246922	UBAP1L	-0.051	3.62E-02
ENSG00000278231	AL133342.1	0.050	3.63E-02
ENSG00000159352	PSMD4	0.025	3.63E-02
ENSG00000115053	NCL	-0.031	3.64E-02
ENSG00000113569	NUP155	-0.025	3.64E-02
ENSG00000108578	BLMH	-0.035	3.64E-02
ENSG00000118482	PHF3	0.019	3.64E-02
ENSG00000267575	AC006504.5	-0.026	3.64E-02
ENSG00000107819	SFXN3	-0.030	3.65E-02
ENSG00000177542	SLC25A22	-0.061	3.65E-02
ENSG00000090382	LYZ	0.051	3.65E-02
ENSG00000164649	CDCA7L	-0.050	3.66E-02
ENSG00000122420	PTGFR	0.152	3.66E-02
ENSG00000264364	DYNLL2	-0.019	3.66E-02
ENSG00000166833	NAV2	-0.160	3.67E-02
ENSG00000213203	GIMAP1	-0.024	3.67E-02
ENSG00000119771	KLHL29	-0.106	3.68E-02
ENSG00000127311	HELB	-0.027	3.68E-02
ENSG00000167543	TP53I13	-0.041	3.68E-02
ENSG00000196544	BORCS6	0.028	3.68E-02
ENSG00000153896	ZNF599	-0.047	3.68E-02
ENSG00000198521	ZNF43	-0.031	3.68E-02
ENSG00000099821	POLRMT	-0.046	3.69E-02
ENSG00000175787	ZNF169	-0.028	3.69E-02
ENSG00000105750	ZNF85	-0.047	3.69E-02
ENSG00000100206	DMC1	-0.130	3.70E-02
ENSG00000132436	FIGNL1	-0.038	3.70E-02
ENSG00000139343	SNRPF	-0.037	3.70E-02
ENSG00000158717	RNF166	0.036	3.70E-02
ENSG00000272617	AC026464.6	-0.123	3.70E-02

ENSG00000196976	LAGE3	-0.041	3.70E-02
ENSG00000119718	EIF2B2	-0.029	3.70E-02
ENSG00000113758	DBN1	0.057	3.70E-02
ENSG00000135900	MRPL44	0.025	3.71E-02
ENSG00000211806	TRAV25	-0.080	3.71E-02
ENSG00000101384	JAG1	0.056	3.71E-02
ENSG00000147234	FRMPD3	-0.101	3.71E-02
ENSG00000172888	ZNF621	-0.028	3.71E-02
ENSG00000168970	JMJD7-PLA2G4B	-0.042	3.72E-02
ENSG00000122140	MRPS2	-0.036	3.72E-02
ENSG00000245552	AP000787.1	-0.055	3.73E-02
ENSG00000279598	AC009948.3	0.041	3.74E-02
ENSG00000229117	RPL41	-0.081	3.74E-02
ENSG00000170085	SIMC1	-0.037	3.74E-02
ENSG00000187790	FANCM	-0.036	3.75E-02
ENSG00000271122	AC018647.2	-0.035	3.75E-02
ENSG00000281852	LINC00891	-0.056	3.75E-02
ENSG00000255441	SIGLEC10-AS1	-0.108	3.75E-02
ENSG00000197776	KLHDC1	-0.044	3.75E-02
ENSG00000132388	UBE2G1	0.023	3.75E-02
ENSG00000184792	OSBP2	-0.106	3.75E-02
ENSG00000173762	CD7	-0.053	3.75E-02
ENSG00000170956	CEACAM3	0.048	3.75E-02
ENSG00000211795	TRAV8-6	-0.061	3.75E-02
ENSG00000234506	LINC01506	0.084	3.76E-02
ENSG00000249471	ZNF324B	-0.037	3.76E-02
ENSG00000234444	ZNF736	-0.030	3.76E-02
ENSG00000183134	PTGDR2	0.073	3.76E-02
ENSG00000130731	METTL26	-0.046	3.77E-02
ENSG00000229989	MIR181A1HG	0.045	3.77E-02
ENSG00000144655	CSRNP1	0.043	3.77E-02
ENSG00000129295	LRRC6	0.089	3.77E-02
ENSG00000137270	GCM1	0.086	3.77E-02
ENSG00000108829	LRRC59	0.022	3.77E-02
ENSG00000176209	SMIM19	-0.042	3.78E-02
ENSG00000287737	AC132872.5	0.076	3.78E-02
ENSG00000073584	SMARCE1	-0.020	3.78E-02
ENSG00000168824	NSG1	-0.094	3.78E-02
ENSG00000114993	RTKN	-0.110	3.78E-02
ENSG00000179387	ELMOD2	0.029	3.79E-02
ENSG00000230317	LINC01284	-0.088	3.79E-02
ENSG00000167637	ZNF283	-0.033	3.79E-02
ENSG00000188266	HYKK	-0.105	3.79E-02
ENSG00000092098	RNF31	0.032	3.79E-02
ENSG00000181847	TIGIT	-0.052	3.79E-02
ENSG00000189241	TSPYL1	-0.021	3.79E-02
ENSG00000240401	AC012358.2	0.060	3.80E-02

ENSG00000163703	CRELD1	-0.038	3.80E-02
ENSG00000063245	EPN1	0.044	3.81E-02
ENSG00000136045	PWP1	-0.031	3.81E-02
ENSG00000261611	AC010547.4	-0.111	3.82E-02
ENSG00000138363	ATIC	-0.046	3.82E-02
ENSG00000109066	TMEM104	-0.059	3.82E-02
ENSG00000147883	CDKN2B	0.058	3.82E-02
ENSG00000120306	CYSTM1	0.059	3.83E-02
ENSG00000114544	SLC41A3	-0.032	3.84E-02
ENSG00000196724	ZNF418	-0.069	3.84E-02
ENSG00000154727	GABPA	0.024	3.84E-02
ENSG00000036054	TBC1D23	0.024	3.84E-02
ENSG00000175701	MTLN	-0.057	3.85E-02
ENSG00000133884	DPF2	0.027	3.85E-02
ENSG00000170579	DLGAP1	-0.170	3.85E-02
ENSG00000213889	PPM1N	-0.063	3.85E-02
ENSG00000100226	GTPBP1	0.038	3.85E-02
ENSG00000082641	NFE2L1	0.031	3.85E-02
ENSG00000214595	EML6	-0.100	3.85E-02
ENSG00000228393	LINC01004	0.045	3.85E-02
ENSG00000272345	AL031775.1	0.047	3.85E-02
ENSG00000255587	RAB44	0.062	3.86E-02
ENSG00000242525	OR7E100P	0.063	3.86E-02
ENSG00000092036	HAUS4	0.046	3.86E-02
ENSG00000139083	ETV6	0.042	3.86E-02
ENSG00000162885	B3GALNT2	-0.041	3.86E-02
ENSG00000254231	AC103760.1	-0.093	3.86E-02
ENSG00000110237	ARHGEF17	0.144	3.86E-02
ENSG00000230409	TCEA1P2	-0.087	3.86E-02
ENSG00000105122	RASAL3	-0.033	3.87E-02
ENSG00000182871	COL18A1	0.080	3.87E-02
ENSG00000254614	AP003068.2	0.071	3.87E-02
ENSG00000143862	ARL8A	0.035	3.87E-02
ENSG00000211716	TRBV9	-0.070	3.88E-02
ENSG00000198947	DMD	-0.133	3.88E-02
ENSG00000159399	HK2	0.044	3.88E-02
ENSG00000075303	SLC25A40	0.033	3.88E-02
ENSG00000185168	LINC00482	0.105	3.89E-02
ENSG00000172985	SH3RF3	0.067	3.89E-02
ENSG00000165097	KDM1B	0.038	3.89E-02
ENSG00000162378	ZYG11B	0.025	3.90E-02
ENSG00000235888	AF064858.1	0.110	3.90E-02
ENSG00000121933	TMIGD3	0.112	3.90E-02
ENSG00000083635	NUFIP1	-0.042	3.90E-02
ENSG00000062650	WAPL	0.018	3.90E-02
ENSG00000064989	CALCRL	0.076	3.92E-02
ENSG00000146021	KLHL3	-0.054	3.92E-02

ENSG00000246273	SBF2-AS1	-0.068	3.93E-02
ENSG00000162368	CMPK1	-0.029	3.94E-02
ENSG00000265681	RPL17	-0.089	3.94E-02
ENSG00000229321	AC008269.1	-0.066	3.94E-02
ENSG00000279406	AL359183.1	-0.067	3.94E-02
ENSG00000147224	PRPS1	-0.035	3.95E-02
ENSG00000157017	GHRL	0.075	3.95E-02
ENSG00000213024	NUP62	-0.030	3.95E-02
ENSG00000087191	PSMC5	-0.021	3.95E-02
ENSG00000100346	CACNA1I	-0.064	3.96E-02
ENSG00000263482	ANTXRPL1	-0.064	3.96E-02
ENSG00000140263	SORD	0.045	3.96E-02
ENSG00000110700	RPS13	-0.040	3.96E-02
ENSG00000105767	CADM4	0.075	3.97E-02
ENSG00000183426	NPIPA1	-0.054	3.97E-02
ENSG00000186654	PRR5	-0.047	3.97E-02
ENSG00000163083	INHBB	0.107	3.98E-02
ENSG00000161970	RPL26	-0.097	3.99E-02
ENSG00000198042	MAK16	-0.035	4.00E-02
ENSG00000254325	AC018607.1	0.066	4.00E-02
ENSG00000030110	BAK1	0.033	4.00E-02
ENSG00000274712	AC005332.4	-0.046	4.00E-02
ENSG00000229955	Z98749.1	0.052	4.01E-02
ENSG00000128059	PPAT	-0.034	4.01E-02
ENSG00000124772	CPNE5	-0.062	4.01E-02
ENSG00000118418	HMG3	-0.037	4.01E-02
ENSG00000162946	DISC1	0.049	4.01E-02
ENSG00000169641	LUZP1	-0.029	4.03E-02
ENSG00000130517	PGPEP1	-0.039	4.03E-02
ENSG00000237505	PKN2-AS1	0.108	4.03E-02
ENSG00000130300	PLVAP	-0.119	4.03E-02
ENSG00000197054	ZNF763	0.049	4.03E-02
ENSG00000237765	FAM200B	0.032	4.03E-02
ENSG00000163728	TTC14	-0.026	4.04E-02
ENSG00000057252	SOAT1	0.024	4.04E-02
ENSG00000152409	JMY	-0.034	4.04E-02
ENSG00000206965	RNU6-5P	0.106	4.04E-02
ENSG00000127084	FGD3	0.034	4.05E-02
ENSG00000178971	CTC1	-0.042	4.05E-02
ENSG00000165650	PDZD8	0.036	4.06E-02
ENSG00000261613	AC093525.6	0.063	4.07E-02
ENSG00000101425	BPI	0.105	4.07E-02
ENSG00000266865	AC138207.8	-0.076	4.07E-02
ENSG00000234383	CTBP2P8	0.093	4.07E-02
ENSG00000125780	TGM3	0.100	4.07E-02
ENSG00000152382	TADA1	-0.030	4.07E-02
ENSG00000246223	LINC01550	-0.049	4.07E-02

ENSG00000102886	GDPD3	0.055	4.07E-02
ENSG00000164442	CITED2	0.023	4.07E-02
ENSG00000156831	NSMCE2	-0.028	4.07E-02
ENSG00000152953	STK32B	0.110	4.07E-02
ENSG00000130313	PGLS	0.028	4.07E-02
ENSG00000143127	ITGA10	-0.076	4.08E-02
ENSG00000198498	TMA16	-0.031	4.08E-02
ENSG00000202357	Y_RNA	0.133	4.09E-02
ENSG00000287595	AC097369.2	-0.094	4.09E-02
ENSG00000121892	PDS5A	-0.021	4.09E-02
ENSG00000181873	IBA57	-0.065	4.09E-02
ENSG00000260000	AL133338.1	-0.089	4.10E-02
ENSG00000175764	TTLL11	-0.047	4.10E-02
ENSG00000198393	ZNF26	-0.032	4.10E-02
ENSG00000166508	MCM7	-0.022	4.10E-02
ENSG00000115159	GPD2	0.031	4.10E-02
ENSG00000251595	ABCA11P	-0.057	4.11E-02
ENSG00000163754	GYG1	0.032	4.11E-02
ENSG00000197471	SPN	-0.032	4.11E-02
ENSG00000204498	NFKBIL1	0.047	4.11E-02
ENSG00000232838	PET117	-0.078	4.12E-02
ENSG00000196668	LINC00173	0.078	4.12E-02
ENSG00000181894	ZNF329	-0.037	4.12E-02
ENSG00000270580	PKD1P6-NPIPP1	-0.164	4.12E-02
ENSG00000150760	DOCK1	0.109	4.12E-02
ENSG00000241127	YAE1	-0.047	4.12E-02
ENSG00000147364	FBXO25	-0.040	4.12E-02
ENSG00000135951	TSGA10	-0.048	4.13E-02
ENSG00000110108	TMEM109	-0.030	4.13E-02
ENSG00000272953	AC092171.4	0.064	4.13E-02
ENSG00000153044	CENPH	-0.057	4.13E-02
ENSG00000100296	THOC5	0.033	4.13E-02
ENSG00000101266	CSNK2A1	-0.013	4.13E-02
ENSG00000111530	CAND1	-0.025	4.13E-02
ENSG00000136929	HEMGN	-0.092	4.13E-02
ENSG00000078487	ZCWPW1	-0.045	4.13E-02
ENSG00000171970	ZNF57	-0.047	4.13E-02
ENSG00000205089	CCNI2	-0.078	4.14E-02
ENSG00000095015	MAP3K1	0.021	4.14E-02
ENSG00000185621	LMLN	-0.068	4.14E-02
ENSG00000164111	ANXA5	0.032	4.15E-02
ENSG00000105726	ATP13A1	-0.044	4.15E-02
ENSG00000130844	ZNF331	-0.039	4.15E-02
ENSG00000171302	CANT1	0.036	4.15E-02
ENSG00000069248	NUP133	-0.027	4.15E-02
ENSG00000156232	WHAMM	-0.041	4.15E-02
ENSG00000142227	EMP3	0.028	4.16E-02

ENSG00000105205	CLC	0.090	4.16E-02
ENSG00000224307	AL161785.1	0.060	4.16E-02
ENSG00000119684	MLH3	-0.033	4.16E-02
ENSG00000239839	DEFA3	0.225	4.17E-02
ENSG00000261226	AC092384.3	0.056	4.17E-02
ENSG00000260496	AC009041.1	-0.085	4.17E-02
ENSG00000240875	LINC00886	-0.103	4.17E-02
ENSG00000276027	RNU12	0.122	4.17E-02
ENSG00000152240	HAUS1	-0.058	4.17E-02
ENSG00000267385	AC011498.4	0.078	4.18E-02
ENSG00000161956	SENP3	-0.033	4.18E-02
ENSG00000133030	MPRIP	-0.029	4.18E-02
ENSG00000182742	HOXB4	-0.061	4.18E-02
ENSG00000189127	ANKRD34B	0.127	4.18E-02
ENSG00000234572	LINC01800	-0.096	4.18E-02
ENSG00000133317	LGALS12	0.060	4.19E-02
ENSG00000239794	RN7SL653P	-0.111	4.19E-02
ENSG00000265218	AC103810.2	-0.169	4.19E-02
ENSG00000122971	ACADS	-0.036	4.19E-02
ENSG00000257875	AC089998.3	0.069	4.19E-02
ENSG00000213995	NAXD	-0.026	4.20E-02
ENSG00000160255	ITGB2	0.035	4.21E-02
ENSG00000082196	C1QTNF3	-0.054	4.22E-02
ENSG00000198931	APRT	-0.033	4.22E-02
ENSG00000174353	STAG3L3	-0.031	4.22E-02
ENSG00000157335	CLEC18C	0.173	4.22E-02
ENSG00000169385	RNASE2	0.080	4.22E-02
ENSG00000269553	U62631.1	-0.101	4.22E-02
ENSG00000171566	PLRG1	-0.031	4.23E-02
ENSG00000101856	PGRMC1	0.046	4.23E-02
ENSG00000114554	PLXNA1	-0.060	4.23E-02
ENSG00000169223	LMAN2	0.023	4.24E-02
ENSG00000177606	JUN	0.040	4.24E-02
ENSG00000140025	EFCAB11	0.054	4.24E-02
ENSG00000205609	EIF3CL	-0.284	4.24E-02
ENSG00000237927	AL078604.2	0.095	4.25E-02
ENSG00000229591	AC006017.1	0.061	4.25E-02
ENSG00000101986	ABCD1	0.044	4.25E-02
ENSG00000129353	SLC44A2	0.041	4.25E-02
ENSG00000101752	MIB1	0.022	4.25E-02
ENSG00000152782	PANK1	-0.075	4.25E-02
ENSG00000134602	STK26	0.022	4.25E-02
ENSG00000137818	RPLP1	-0.039	4.25E-02
ENSG00000246174	KCTD21-AS1	-0.116	4.25E-02
ENSG00000219712	AL357054.1	-0.063	4.25E-02
ENSG00000276566	IGKV1D-13	-0.189	4.25E-02
ENSG00000188428	BLOC1S5	-0.026	4.25E-02

ENSG00000230989	HSBP1	0.043	4.26E-02
ENSG00000164088	PPM1M	0.023	4.26E-02
ENSG00000122643	NT5C3A	0.034	4.26E-02
ENSG00000283293	RN7SK	0.059	4.26E-02
ENSG00000279727	LINC02033	0.051	4.26E-02
ENSG00000175390	EIF3F	-0.027	4.26E-02
ENSG00000093183	SEC22C	-0.023	4.27E-02
ENSG00000227486	AL050309.1	-0.056	4.28E-02
ENSG00000215440	NPEPL1	0.033	4.28E-02
ENSG00000145348	TBCK	-0.027	4.28E-02
ENSG00000077348	EXOSC5	-0.043	4.28E-02
ENSG00000186575	NF2	-0.023	4.28E-02
ENSG00000162542	TMCO4	-0.038	4.29E-02
ENSG00000259075	POC1B-GALNT4	0.260	4.29E-02
ENSG00000129657	SEC14L1	0.049	4.30E-02
ENSG00000184786	DYNLT2	-0.049	4.30E-02
ENSG00000211721	TRBV6-5	-0.067	4.30E-02
ENSG00000160785	SLC25A44	0.047	4.30E-02
ENSG00000204370	SDHD	0.021	4.30E-02
ENSG00000178105	DDX10	-0.033	4.30E-02
ENSG00000150403	TMCO3	0.032	4.31E-02
ENSG00000237693	IRGM	-0.082	4.31E-02
ENSG00000163918	RFC4	-0.041	4.31E-02
ENSG00000211747	TRBV20-1	-0.051	4.31E-02
ENSG00000107816	LZTS2	-0.044	4.31E-02
ENSG00000179532	DNHD1	-0.050	4.33E-02
ENSG00000101191	DIDO1	-0.012	4.33E-02
ENSG00000106554	CHCHD3	-0.020	4.33E-02
ENSG00000171992	SYNPO	-0.106	4.34E-02
ENSG00000241163	LINC00877	0.050	4.34E-02
ENSG00000165914	TTC7B	0.075	4.35E-02
ENSG00000163606	CD200R1	-0.037	4.35E-02
ENSG00000206561	COLQ	-0.065	4.35E-02
ENSG00000143740	SNAP47	-0.025	4.35E-02
ENSG00000211790	TRAV8-4	-0.065	4.36E-02
ENSG00000275527	AC100835.2	-0.111	4.36E-02
ENSG00000137486	ARRB1	0.029	4.36E-02
ENSG00000119714	GPR68	-0.056	4.36E-02
ENSG00000111254	AKAP3	-0.085	4.36E-02
ENSG00000103534	TMC5	-0.124	4.37E-02
ENSG00000164074	ABHD18	0.023	4.37E-02
ENSG00000271147	ARMCX5-GPRASP2	-0.041	4.37E-02
ENSG00000265100	AC005332.1	-0.073	4.37E-02
ENSG00000160888	IER2	0.026	4.37E-02
ENSG00000288043	AC006511.6	0.119	4.37E-02
ENSG00000136463	TACO1	-0.027	4.37E-02
ENSG00000140280	LYSMD2	0.032	4.37E-02

ENSG00000258768	AL356019.2	-0.073	4.37E-02
ENSG00000103544	VPS35L	-0.027	4.37E-02
ENSG00000279481	AC104791.2	-0.076	4.38E-02
ENSG00000141068	KSR1	0.052	4.38E-02
ENSG00000164715	LMTK2	0.044	4.38E-02
ENSG00000165810	BTNL9	-0.151	4.38E-02
ENSG00000187838	PLSCR3	-0.040	4.38E-02
ENSG00000211694	TRGV10	-0.074	4.38E-02
ENSG00000228446	ANKRD49P1	0.035	4.38E-02
ENSG00000087157	PGS1	0.037	4.38E-02
ENSG00000120805	ARL1	-0.030	4.39E-02
ENSG00000083817	ZNF416	-0.035	4.39E-02
ENSG00000146282	RARS2	-0.026	4.39E-02
ENSG00000176454	LPCAT4	-0.032	4.39E-02
ENSG00000152464	RPP38	-0.031	4.40E-02
ENSG00000256581	NLRP9P1	0.074	4.40E-02
ENSG00000164896	FASTK	-0.030	4.41E-02
ENSG00000162521	RBBP4	-0.016	4.41E-02
ENSG00000089639	GMIP	0.038	4.41E-02
ENSG00000122042	UBL3	0.021	4.41E-02
ENSG00000188822	CNR2	-0.050	4.42E-02
ENSG00000129925	PGAP6	0.041	4.42E-02
ENSG00000134909	ARHGAP32	-0.063	4.42E-02
ENSG00000213923	CSNK1E	-0.034	4.42E-02
ENSG00000096401	CDC5L	0.020	4.42E-02
ENSG00000139131	YARS2	-0.040	4.43E-02
ENSG00000178921	PFAS	-0.065	4.43E-02
ENSG00000128918	ALDH1A2	0.096	4.43E-02
ENSG00000284713	SMIM38	0.121	4.44E-02
ENSG00000227057	WDR46	-0.027	4.44E-02
ENSG00000115840	SLC25A12	-0.030	4.44E-02
ENSG00000140511	HAPLN3	-0.047	4.44E-02
ENSG00000108021	TASOR2	-0.024	4.45E-02
ENSG00000198843	SELENOT	0.027	4.45E-02
ENSG00000164306	PRIMPOL	-0.039	4.45E-02
ENSG00000136153	LMO7	-0.047	4.45E-02
ENSG00000276422	AL590491.2	0.137	4.46E-02
ENSG00000205730	ITPRIPL2	0.036	4.46E-02
ENSG00000229325	ACAP2-IT1	0.067	4.46E-02
ENSG00000284931	AC104389.6	-0.237	4.47E-02
ENSG00000169026	SLC49A3	0.052	4.47E-02
ENSG00000104131	EIF3J	-0.028	4.47E-02
ENSG00000161217	PCYT1A	0.021	4.47E-02
ENSG00000169744	LDB2	-0.131	4.47E-02
ENSG00000219529	AP000580.1	-0.089	4.48E-02
ENSG00000197157	SND1	-0.024	4.48E-02
ENSG00000075711	DLG1	-0.025	4.48E-02

ENSG00000142864	SERBP1	-0.019	4.49E-02
ENSG00000237945	LINC00649	-0.049	4.49E-02
ENSG00000142168	SOD1	-0.034	4.50E-02
ENSG00000125449	ARMC7	0.030	4.51E-02
ENSG00000163029	SMC6	-0.029	4.51E-02
ENSG00000185043	CIB1	-0.028	4.51E-02
ENSG00000173706	HEG1	-0.052	4.52E-02
ENSG00000176896	TCEANC	-0.040	4.53E-02
ENSG00000248487	ABHD14A	-0.043	4.53E-02
ENSG00000204348	DXO	-0.036	4.54E-02
ENSG00000005884	ITGA3	-0.091	4.54E-02
ENSG00000169230	PRELID1	0.028	4.54E-02
ENSG00000237357	BX088651.4	-0.149	4.54E-02
ENSG00000170340	B3GNT2	0.027	4.54E-02
ENSG00000163938	GNL3	-0.040	4.55E-02
ENSG00000076242	MLH1	-0.020	4.55E-02
ENSG00000266173	STRADA	0.029	4.55E-02
ENSG00000156172	C8orf37	-0.051	4.55E-02
ENSG00000255358	NDUFAF2P2	-0.082	4.55E-02
ENSG00000108515	ENO3	-0.054	4.55E-02
ENSG00000164291	ARSK	-0.044	4.55E-02
ENSG00000271380	AL451085.2	-0.077	4.56E-02
ENSG00000285641	AL358472.6	-0.142	4.56E-02
ENSG00000204165	CXorf65	-0.194	4.56E-02
ENSG00000139180	NDUFA9	-0.029	4.56E-02
ENSG00000057757	PITHD1	-0.080	4.57E-02
ENSG00000110079	MS4A4A	0.073	4.57E-02
ENSG00000169567	HINT1	-0.063	4.57E-02
ENSG00000231887	PRH1	-0.036	4.57E-02
ENSG00000167220	HDHD2	-0.026	4.57E-02
ENSG00000183691	NOG	-0.103	4.57E-02
ENSG00000148296	SURF6	-0.024	4.57E-02
ENSG00000177971	IMP3	-0.028	4.58E-02
ENSG00000215068	AC025171.2	0.022	4.58E-02
ENSG00000131844	MCCC2	-0.028	4.59E-02
ENSG00000229320	KRT8P12	0.035	4.59E-02
ENSG00000163900	TMEM41A	-0.025	4.59E-02
ENSG00000064419	TNPO3	0.017	4.60E-02
ENSG00000112659	CUL9	-0.036	4.60E-02
ENSG00000234997	AC016745.1	0.074	4.60E-02
ENSG00000154237	LRRK1	0.045	4.60E-02
ENSG00000205268	PDE7A	-0.024	4.60E-02
ENSG00000255987	TOMM20P2	-0.039	4.60E-02
ENSG00000082701	GSK3B	0.033	4.60E-02
ENSG00000173406	DAB1	-0.115	4.60E-02
ENSG00000185885	IFITM1	0.043	4.60E-02
ENSG00000133872	SARAF	0.019	4.60E-02

ENSG00000134146	DPH6	-0.040	4.61E-02
ENSG00000223799	IL10RB-DT	0.065	4.62E-02
ENSG00000126391	FRMD8	0.034	4.62E-02
ENSG00000213983	AP1G2	-0.025	4.62E-02
ENSG00000170448	NFXL1	0.071	4.62E-02
ENSG00000149311	ATM	-0.021	4.62E-02
ENSG00000279333	AC096636.1	-0.081	4.63E-02
ENSG00000286076	AC005050.3	0.070	4.63E-02
ENSG00000160688	FLAD1	-0.026	4.63E-02
ENSG00000168395	ING5	-0.032	4.63E-02
ENSG00000187676	B3GLCT	-0.033	4.63E-02
ENSG00000237877	LINC01473	-0.060	4.64E-02
ENSG00000122417	ODF2L	-0.034	4.64E-02
ENSG00000251441	RTEL1P1	0.068	4.64E-02
ENSG00000185104	FAF1	-0.022	4.64E-02
ENSG00000165959	CLMN	0.049	4.64E-02
ENSG00000005483	KMT2E	0.022	4.65E-02
ENSG00000142552	RCN3	0.080	4.65E-02
ENSG0000023892	DEF6	0.019	4.66E-02
ENSG00000087206	UIMC1	0.026	4.66E-02
ENSG00000230658	KLHL7-DT	-0.100	4.66E-02
ENSG00000171476	HOPX	-0.062	4.66E-02
ENSG00000163611	SPICE1	-0.033	4.67E-02
ENSG00000211820	TRAV41	-0.078	4.67E-02
ENSG00000125430	HS3ST3B1	-0.033	4.67E-02
ENSG00000050628	PTGER3	0.117	4.67E-02
ENSG00000051382	PIK3CB	0.032	4.67E-02
ENSG00000162735	PEX19	-0.019	4.67E-02
ENSG00000104524	PYCR3	-0.059	4.68E-02
ENSG00000281179	AC135068.5	-0.090	4.69E-02
ENSG00000167702	KIFC2	-0.043	4.69E-02
ENSG00000105656	ELL	0.037	4.69E-02
ENSG00000205659	LIN52	-0.037	4.70E-02
ENSG00000197153	H3C12	0.064	4.70E-02
ENSG00000168778	TCTN2	-0.060	4.70E-02
ENSG00000203747	FCGR3A	0.061	4.70E-02
ENSG00000068323	TFE3	0.036	4.70E-02
ENSG00000008853	RHOBTB2	-0.067	4.70E-02
ENSG00000180354	MTURN	0.041	4.70E-02
ENSG00000004478	FKBP4	-0.034	4.70E-02
ENSG00000164975	SNAPC3	-0.022	4.70E-02
ENSG00000105821	DNAJC2	-0.032	4.70E-02
ENSG00000128268	MGAT3	0.077	4.70E-02
ENSG00000152315	KCNK13	0.075	4.70E-02
ENSG00000277072	STAG3L2	-0.041	4.71E-02
ENSG00000132669	RIN2	0.046	4.71E-02
ENSG00000196204	RNF216P1	-0.035	4.71E-02

ENSG00000219665	ZNF433-AS1	-0.039	4.71E-02
ENSG00000149970	CNKS2	-0.048	4.71E-02
ENSG00000174238	PITPNA	0.037	4.71E-02
ENSG00000134250	NOTCH2	0.035	4.71E-02
ENSG00000102879	CORO1A	0.030	4.71E-02
ENSG00000169612	RAMAC	0.027	4.71E-02
ENSG00000259673	IQCH-AS1	-0.048	4.72E-02
ENSG00000197024	ZNF398	0.019	4.72E-02
ENSG00000156587	UBE2L6	0.046	4.72E-02
ENSG00000173295	FAM86B3P	-0.092	4.72E-02
ENSG00000183307	TMEM121B	0.068	4.72E-02
ENSG00000235128	AC013474.1	-0.091	4.72E-02
ENSG00000128512	DOCK4	0.071	4.73E-02
ENSG00000164258	NDUFS4	-0.053	4.73E-02
ENSG00000146457	WTAP	0.018	4.73E-02
ENSG00000058453	CROCC	-0.045	4.73E-02
ENSG00000198056	PRIM1	-0.035	4.73E-02
ENSG00000233038	PTPRN2-AS1	0.065	4.73E-02
ENSG00000185262	UBALD2	0.044	4.74E-02
ENSG00000283602	AC116353.6	0.082	4.74E-02
ENSG00000080561	MID2	-0.061	4.74E-02
ENSG00000280071	GATD3B	-0.077	4.74E-02
ENSG00000150593	PDCD4	-0.020	4.75E-02
ENSG00000261618	LINC02605	-0.076	4.75E-02
ENSG00000222365	SNORD12B	0.095	4.75E-02
ENSG00000165288	BRWD3	0.033	4.75E-02
ENSG00000119537	KDSR	-0.033	4.75E-02
ENSG00000211706	TRBV6-1	-0.070	4.75E-02
ENSG00000151445	VIPAS39	0.021	4.76E-02
ENSG00000165689	ENTR1	-0.030	4.77E-02
ENSG00000176868	AL358781.1	-0.070	4.77E-02
ENSG00000127124	HIVEP3	-0.060	4.77E-02
ENSG00000184939	ZFP90	-0.036	4.78E-02
ENSG00000122043	LINC00544	-0.075	4.79E-02
ENSG00000158483	FAM86C1P	-0.058	4.79E-02
ENSG00000164168	TMEM184C	0.019	4.79E-02
ENSG00000225094	SETP20	-0.088	4.79E-02
ENSG00000123737	EXOSC9	-0.027	4.80E-02
ENSG00000101442	ACTR5	-0.026	4.80E-02
ENSG00000244045	TMEM199	0.022	4.80E-02
ENSG00000072163	LIMS2	-0.104	4.81E-02
ENSG00000272779	AC245060.4	-0.043	4.81E-02
ENSG00000118707	TGIF2	-0.029	4.81E-02
ENSG00000186660	ZFP91	0.014	4.81E-02
ENSG00000233875	AL592078.1	0.096	4.81E-02
ENSG00000287317	AC016769.6	0.144	4.82E-02
ENSG00000196663	TECPR2	0.049	4.82E-02

ENSG00000118246	FASTKD2	-0.027	4.83E-02
ENSG00000213780	GTF2H4	-0.045	4.83E-02
ENSG00000158769	F11R	0.045	4.83E-02
ENSG00000248445	SEMA6A-AS1	-0.047	4.83E-02
ENSG00000184923	NUTM2A	-0.164	4.83E-02
ENSG00000159692	CTBP1	-0.022	4.83E-02
ENSG00000115268	RPS15	-0.033	4.83E-02
ENSG00000197980	LEKR1	-0.116	4.83E-02
ENSG00000263620	AC129492.3	0.165	4.83E-02
ENSG00000103671	TRIP4	0.024	4.83E-02
ENSG00000139687	RB1	0.020	4.83E-02
ENSG00000227953	LINC01341	0.090	4.84E-02
ENSG00000164236	ANKRD33B	0.048	4.84E-02
ENSG00000251247	ZNF345	-0.035	4.84E-02
ENSG00000180185	FAHD1	-0.044	4.84E-02
ENSG00000164346	NSA2	-0.046	4.85E-02
ENSG00000286940	MICB-DT	0.069	4.86E-02
ENSG00000239789	MRPS17	-0.035	4.87E-02
ENSG00000287185	AC041005.1	0.080	4.87E-02
ENSG00000132010	ZNF20	0.043	4.88E-02
ENSG00000211750	TRBV24-1	-0.083	4.88E-02
ENSG00000276234	TADA2A	-0.031	4.89E-02
ENSG00000130475	FCHO1	0.032	4.89E-02
ENSG00000228340	MIR646HG	0.051	4.89E-02
ENSG00000146426	TIAM2	0.043	4.89E-02
ENSG00000226891	LINC01359	0.068	4.89E-02
ENSG00000083168	KAT6A	0.026	4.90E-02
ENSG00000178035	IMPDH2	-0.027	4.90E-02
ENSG00000134285	FKBP11	-0.037	4.90E-02
ENSG00000271394	7SK	0.068	4.91E-02
ENSG00000143382	ADAMTSL4	0.068	4.91E-02
ENSG00000248477	NAIPP3	0.078	4.91E-02
ENSG00000156042	CFAP70	0.044	4.93E-02
ENSG00000122435	TRMT13	-0.035	4.93E-02
ENSG00000198502	HLA-DRB5	-0.082	4.94E-02
ENSG00000184232	OAF	0.042	4.94E-02
ENSG00000172009	THOP1	-0.040	4.94E-02
ENSG00000163516	ANKZF1	-0.021	4.95E-02
ENSG00000234585	CCT6P3	0.036	4.95E-02
ENSG00000198853	RUSC2	0.055	4.95E-02
ENSG00000177556	ATOX1	0.027	4.95E-02
ENSG00000109270	LAMTOR3	0.036	4.95E-02
ENSG00000124813	RUNX2	0.034	4.95E-02
ENSG00000019169	MARCO	0.088	4.96E-02
ENSG00000132879	FBXO44	-0.041	4.96E-02
ENSG00000082153	BZW1	0.022	4.96E-02
ENSG00000156858	PRR14	0.035	4.96E-02

ENSG00000007168	PAFAH1B1	0.022	4.97E-02
ENSG00000196313	POM121	-0.038	4.98E-02
ENSG00000180479	ZNF571	-0.062	4.98E-02
ENSG00000074356	NCBP3	0.025	4.99E-02
ENSG00000275793	RIMBP3	-0.060	4.99E-02
ENSG00000274370	AC130371.2	0.063	4.99E-02
ENSG00000161813	LARP4	-0.031	5.00E-02
ENSG00000035115	SH3YL1	-0.037	5.00E-02
ENSG00000138741	TRPC3	0.146	5.00E-02
ENSG00000198363	ASPH	0.050	5.00E-02
ENSG00000269837	IPO5P1	-0.053	5.01E-02
ENSG00000166947	EPB42	-0.096	5.01E-02
ENSG00000254682	AP002387.1	-0.060	5.01E-02
ENSG00000198522	GPN1	-0.026	5.01E-02
ENSG00000144524	COPS7B	-0.035	5.01E-02
ENSG00000105609	LILRB5	0.101	5.02E-02
ENSG00000189164	ZNF527	-0.043	5.02E-02
ENSG00000166226	CCT2	-0.036	5.03E-02
ENSG00000141968	VAV1	0.025	5.03E-02
ENSG00000253394	LINC00534	0.094	5.04E-02
ENSG00000160298	C21orf58	-0.054	5.04E-02
ENSG00000223865	HLA-DPB1	-0.038	5.04E-02
ENSG00000013441	CLK1	0.024	5.04E-02
ENSG00000273382	TMEM167B-DT	0.053	5.04E-02
ENSG00000117614	SYF2	0.027	5.04E-02
ENSG00000260924	LINC01311	-0.074	5.05E-02
ENSG00000270571	AC007681.1	-0.087	5.05E-02
ENSG00000273837	AC018755.4	0.118	5.05E-02
ENSG00000050426	LETMD1	-0.019	5.05E-02
ENSG00000233461	AL445524.1	0.073	5.05E-02
ENSG00000241316	SUCLG2-AS1	-0.053	5.05E-02
ENSG00000134262	AP4B1	-0.024	5.05E-02
ENSG00000205464	ATP6AP1L	-0.089	5.05E-02
ENSG00000259366	AC108449.2	-0.087	5.05E-02
ENSG00000166444	DENND2B	-0.149	5.05E-02
ENSG00000185684	EP400P1	-0.050	5.06E-02
ENSG00000165568	AKR1E2	-0.095	5.06E-02
ENSG00000120519	SLC10A7	-0.030	5.07E-02
ENSG00000169435	RASSF6	-0.108	5.07E-02
ENSG00000213443	NPM1P7	-0.105	5.07E-02
ENSG00000253203	GUSBP3	-0.042	5.07E-02
ENSG00000197943	PLCG2	0.032	5.08E-02
ENSG00000267254	ZNF790-AS1	-0.048	5.08E-02
ENSG00000261732	AL031708.1	-0.073	5.09E-02
ENSG00000234608	MAPKAPK5-AS1	-0.039	5.10E-02
ENSG00000197324	LRP10	0.049	5.10E-02
ENSG00000155093	PTPRN2	0.059	5.10E-02

ENSG00000104381	GDAP1	-0.037	5.11E-02
ENSG00000177613	CSTF2T	-0.022	5.12E-02
ENSG00000184381	PLA2G6	-0.040	5.12E-02
ENSG00000147955	SIGMAR1	-0.024	5.13E-02
ENSG00000271151	AC016737.1	0.057	5.13E-02
ENSG00000112893	MAN2A1	-0.019	5.13E-02
ENSG00000245556	SCAMP1-AS1	-0.039	5.15E-02
ENSG00000165417	GTF2A1	0.018	5.15E-02
ENSG00000075340	ADD2	-0.067	5.15E-02
ENSG00000187049	TMEM216	0.030	5.15E-02
ENSG00000189007	ADAT2	-0.043	5.15E-02
ENSG00000181315	ZNF322	0.035	5.16E-02
ENSG00000172005	MAL	-0.047	5.16E-02
ENSG00000099783	HNRNPM	-0.016	5.17E-02
ENSG00000233806	LINC01237	-0.068	5.17E-02
ENSG00000116285	ERRFI1	-0.072	5.17E-02
ENSG00000277462	ZNF670	-0.045	5.17E-02
ENSG00000273729	AC007686.3	0.046	5.18E-02
ENSG00000131187	F12	0.083	5.18E-02
ENSG00000189043	NDUFA4	-0.054	5.18E-02
ENSG00000272498	AC090948.2	-0.051	5.18E-02
ENSG00000197535	MYO5A	0.027	5.18E-02
ENSG00000233585	AC231533.2	0.114	5.18E-02
ENSG00000259448	LINC02352	0.042	5.20E-02
ENSG00000241404	EGFL8	-0.107	5.20E-02
ENSG00000149930	TAOK2	0.020	5.20E-02
ENSG00000066136	NFYC	0.026	5.21E-02
ENSG00000253731	PCDHGA6	-0.075	5.21E-02
ENSG00000225014	KCTD9P1	0.048	5.21E-02
ENSG00000160191	PDE9A	-0.091	5.22E-02
ENSG00000100055	CYTH4	0.028	5.22E-02
ENSG00000076003	MCM6	-0.029	5.22E-02
ENSG00000119402	FBXW2	0.016	5.22E-02
ENSG00000196295	GARS1-DT	0.021	5.22E-02
ENSG00000167208	SNX20	0.020	5.22E-02
ENSG00000175395	ZNF25	-0.024	5.22E-02
ENSG00000269220	LINC00528	0.032	5.22E-02
ENSG00000153487	ING1	0.020	5.22E-02
ENSG00000121058	COIL	-0.028	5.22E-02
ENSG00000122641	INHBA	0.131	5.22E-02
ENSG00000286813	AC015871.6	0.041	5.22E-02
ENSG00000158796	DEDD	0.031	5.22E-02
ENSG00000261553	AL137782.1	-0.079	5.22E-02
ENSG00000151640	DPYSL4	-0.159	5.22E-02
ENSG00000246790	AP000977.1	-0.042	5.22E-02
ENSG00000276043	UHRF1	0.057	5.22E-02
ENSG00000285744	AC083837.1	-0.074	5.23E-02

ENSG00000175198	PCCA	-0.037	5.23E-02
ENSG00000270339	PPIAL4H	-0.085	5.23E-02
ENSG00000120837	NFYB	-0.046	5.23E-02
ENSG00000159784	FAM131B	-0.076	5.23E-02
ENSG00000172262	ZNF131	-0.021	5.25E-02
ENSG00000246145	RRS1-AS1	-0.065	5.25E-02
ENSG00000091140	DLD	0.021	5.25E-02
ENSG00000101391	CDK5RAP1	-0.022	5.26E-02
ENSG00000101412	E2F1	0.062	5.26E-02
ENSG00000005700	IBTK	-0.020	5.26E-02
ENSG00000247011	AC005920.1	-0.081	5.26E-02
ENSG00000056277	ZNF280C	-0.030	5.26E-02
ENSG00000007402	CACNA2D2	-0.090	5.26E-02
ENSG00000176422	SPRYD4	-0.027	5.26E-02
ENSG00000125691	RPL23	-0.088	5.26E-02
ENSG00000119943	PYROXD2	-0.051	5.27E-02
ENSG00000105607	GCDH	-0.031	5.27E-02
ENSG00000143363	PRUNE1	0.026	5.28E-02
ENSG00000154263	ABCA10	0.081	5.28E-02
ENSG00000117543	DPH5	-0.046	5.28E-02
ENSG00000132953	XPO4	-0.025	5.29E-02
ENSG00000121741	ZMYM2	0.018	5.29E-02
ENSG00000140332	TLE3	0.042	5.29E-02
ENSG00000151748	SAV1	-0.032	5.30E-02
ENSG00000165259	HDX	0.053	5.30E-02
ENSG00000164163	ABCE1	-0.034	5.30E-02
ENSG00000134480	CCNH	0.017	5.30E-02
ENSG00000163472	TMEM79	0.034	5.30E-02
ENSG00000168038	ULK4	-0.030	5.30E-02
ENSG00000167074	TEF	-0.039	5.30E-02
ENSG00000197724	PHF2	0.029	5.31E-02
ENSG00000110104	CCDC86	-0.038	5.31E-02
ENSG00000275111	ZNF2	-0.029	5.31E-02
ENSG00000278299	TBC1D3C	-0.215	5.31E-02
ENSG00000136897	MRPL50	-0.042	5.32E-02
ENSG00000242220	TCP10L	-0.142	5.33E-02
ENSG00000286872	AC024270.4	0.062	5.33E-02
ENSG00000100647	SUSD6	0.041	5.34E-02
ENSG00000261490	AC005674.1	0.020	5.34E-02
ENSG00000146278	PNRC1	0.025	5.34E-02
ENSG00000213445	SIPA1	0.032	5.34E-02
ENSG00000133858	ZFC3H1	0.026	5.34E-02
ENSG00000189157	FAM47E	-0.137	5.35E-02
ENSG00000285943	AC112128.1	-0.053	5.35E-02
ENSG00000261326	LINC01355	-0.029	5.35E-02
ENSG00000250959	GLUD1P3	-0.075	5.35E-02
ENSG00000274213	AC015912.3	0.071	5.35E-02

ENSG00000110852	CLEC2B	0.038	5.35E-02
ENSG00000050030	NEXMIF	-0.068	5.35E-02
ENSG00000116977	LGALS8	0.019	5.36E-02
ENSG00000271871	AC005740.4	-0.062	5.37E-02
ENSG00000269800	PLEKHA3P1	-0.082	5.37E-02
ENSG00000145416	MARCHF1	0.029	5.37E-02
ENSG00000100294	MCAT	-0.044	5.38E-02
ENSG00000130584	ZBTB46	0.079	5.38E-02
ENSG00000198915	RASGEF1A	0.047	5.39E-02
ENSG00000215695	RSC1A1	-0.066	5.39E-02
ENSG00000071994	PDCD2	-0.023	5.39E-02
ENSG00000204186	ZDBF2	-0.051	5.39E-02
ENSG00000278987	AL031009.1	-0.047	5.39E-02
ENSG00000187608	ISG15	0.103	5.40E-02
ENSG00000106617	PRKAG2	0.024	5.40E-02
ENSG00000122203	KIAA1191	-0.026	5.40E-02
ENSG00000127527	EPS15L1	0.041	5.40E-02
ENSG00000109685	NSD2	-0.031	5.40E-02
ENSG00000145919	BOD1	-0.032	5.40E-02
ENSG00000181016	LSMEM1	0.064	5.41E-02
ENSG00000146842	TMEM209	-0.029	5.42E-02
ENSG00000101343	CRNKL1	0.020	5.44E-02
ENSG00000273784	AL137058.2	-0.067	5.44E-02
ENSG00000180626	ZNF594	-0.041	5.44E-02
ENSG00000089682	RBM41	-0.024	5.45E-02
ENSG00000159063	ALG8	-0.024	5.46E-02
ENSG00000260563	AC132872.1	0.044	5.47E-02
ENSG00000196290	NIF3L1	-0.028	5.47E-02
ENSG00000182986	ZNF320	-0.044	5.47E-02
ENSG00000259630	FABP5P9	-0.065	5.47E-02
ENSG00000166747	AP1G1	0.020	5.48E-02
ENSG00000285774	AL133444.1	0.097	5.48E-02
ENSG00000254415	SIGLEC14	0.145	5.48E-02
ENSG00000124469	CEACAM8	0.118	5.48E-02
ENSG00000133597	ADCK2	-0.032	5.49E-02
ENSG00000157450	RNF111	0.028	5.50E-02
ENSG00000205220	PSMB10	0.027	5.50E-02
ENSG00000244044	RN7SL735P	-0.109	5.50E-02
ENSG00000205542	TMSB4X	0.025	5.50E-02
ENSG00000272341	AL137003.1	-0.046	5.51E-02
ENSG00000147874	HAUS6	-0.020	5.52E-02
ENSG00000158526	TSR2	-0.023	5.52E-02
ENSG00000155008	APOOL	-0.032	5.52E-02
ENSG00000174944	P2RY14	0.064	5.53E-02
ENSG00000179104	TMTC2	0.029	5.53E-02
ENSG00000103356	EARS2	-0.040	5.54E-02
ENSG00000160991	ORAI2	0.045	5.54E-02

ENSG00000172057	ORMDL3	-0.035	5.54E-02
ENSG00000265479	DTX2P1-UPK3BP1-PM	-0.047	5.54E-02
ENSG00000147439	BIN3	0.025	5.54E-02
ENSG00000196597	ZNF782	-0.028	5.55E-02
ENSG00000198952	SMG5	0.029	5.55E-02
ENSG00000279882	AC112702.1	0.066	5.55E-02
ENSG00000225808	DNAJC19P5	0.050	5.55E-02
ENSG00000108883	EFTUD2	-0.024	5.56E-02
ENSG00000103174	NAGPA	-0.029	5.56E-02
ENSG00000182541	LIMK2	0.047	5.56E-02
ENSG00000259349	AC011921.1	-0.070	5.56E-02
ENSG00000229808	AL391825.1	0.044	5.56E-02
ENSG00000101608	MYL12A	0.020	5.57E-02
ENSG00000128915	ICE2	-0.026	5.57E-02
ENSG00000115415	STAT1	0.045	5.57E-02
ENSG00000137409	MTCH1	0.017	5.57E-02
ENSG00000029725	RABEP1	-0.020	5.58E-02
ENSG00000237541	HLA-DQA2	-0.240	5.58E-02
ENSG00000125520	SLC2A4RG	-0.045	5.58E-02
ENSG00000227383	RPL35AP2	0.076	5.58E-02
ENSG00000130522	JUND	0.039	5.58E-02
ENSG00000075975	MKRN2	0.013	5.59E-02
ENSG00000175061	SNHG29	-0.046	5.60E-02
ENSG00000179598	PLD6	-0.051	5.60E-02
ENSG00000174652	ZNF266	-0.031	5.61E-02
ENSG00000147687	TATDN1	-0.043	5.61E-02
ENSG00000077232	DNAJC10	-0.025	5.61E-02
ENSG00000105866	SP4	-0.025	5.61E-02
ENSG00000165626	BEND7	0.100	5.62E-02
ENSG00000228590	MIR4432HG	-0.068	5.62E-02
ENSG00000159640	ACE	-0.096	5.63E-02
ENSG00000128294	TPST2	0.025	5.63E-02
ENSG00000105298	CACTIN	-0.033	5.63E-02
ENSG00000003509	NDUFAF7	-0.028	5.63E-02
ENSG00000177302	TOP3A	0.025	5.63E-02
ENSG00000243753	HLA-L	0.142	5.64E-02
ENSG00000162065	TBC1D24	-0.044	5.64E-02
ENSG00000099991	CABIN1	0.031	5.64E-02
ENSG00000227195	MIR663AHG	-0.065	5.64E-02
ENSG00000162398	LEXM	-0.085	5.64E-02
ENSG00000232680	AC002511.1	0.085	5.64E-02
ENSG00000129055	ANAPC13	0.027	5.64E-02
ENSG00000187189	TSPYL4	-0.021	5.64E-02
ENSG00000254936	AF131215.4	-0.085	5.64E-02
ENSG00000111684	LPCAT3	0.029	5.65E-02
ENSG00000140829	DHX38	-0.020	5.65E-02
ENSG00000140968	IRF8	-0.027	5.65E-02

ENSG00000117620	SLC35A3	-0.028	5.65E-02
ENSG00000138311	ZNF365	-0.076	5.65E-02
ENSG00000220517	ASS1P1	-0.059	5.66E-02
ENSG00000231682	LINC01891	-0.072	5.66E-02
ENSG00000038532	CLEC16A	-0.045	5.68E-02
ENSG00000267801	AC087289.5	-0.079	5.68E-02
ENSG00000197102	DYNC1H1	-0.027	5.68E-02
ENSG00000111667	USP5	-0.034	5.68E-02
ENSG00000184208	C22orf46	-0.031	5.68E-02
ENSG00000123349	PFDN5	-0.064	5.68E-02
ENSG00000133142	TCEAL4	-0.043	5.68E-02
ENSG00000145949	MYLK4	-0.052	5.68E-02
ENSG00000158089	GALNT14	0.086	5.68E-02
ENSG00000198821	CD247	-0.034	5.68E-02
ENSG00000185088	RPS27L	-0.062	5.69E-02
ENSG00000108239	TBC1D12	0.039	5.69E-02
ENSG00000163389	POGLUT1	-0.026	5.69E-02
ENSG00000100353	EIF3D	-0.019	5.70E-02
ENSG00000207165	SNORA70	0.106	5.70E-02
ENSG00000164053	ATRIP	-0.034	5.71E-02
ENSG00000161036	LRWD1	0.038	5.71E-02
ENSG00000128596	CCDC136	-0.055	5.72E-02
ENSG00000152133	GPATCH11	-0.036	5.72E-02
ENSG00000109618	SEPSECS	-0.024	5.73E-02
ENSG00000244693	CTAGE8	-0.232	5.73E-02
ENSG00000142235	LMTK3	-0.099	5.74E-02
ENSG00000112139	MDGA1	-0.217	5.74E-02
ENSG00000178935	ZNF552	0.029	5.74E-02
ENSG00000164309	CMYA5	-0.076	5.74E-02
ENSG00000171298	GAA	0.042	5.75E-02
ENSG00000215021	PHB2	-0.023	5.75E-02
ENSG00000229106	BTBD6P1	-0.061	5.75E-02
ENSG00000278175	GLIDR	-0.057	5.75E-02
ENSG00000261000	AC244034.2	-0.068	5.76E-02
ENSG00000236525	AC007278.2	0.073	5.76E-02
ENSG00000215039	CD27-AS1	0.046	5.76E-02
ENSG00000187147	RNF220	-0.019	5.78E-02
ENSG00000120742	SERP1	0.024	5.78E-02
ENSG00000140526	ABHD2	0.036	5.78E-02
ENSG00000001629	ANKIB1	-0.027	5.78E-02
ENSG00000096872	IFT74	-0.044	5.78E-02
ENSG00000077147	TM9SF3	0.021	5.79E-02
ENSG00000160953	PWWP3A	-0.030	5.79E-02
ENSG00000100218	RSPH14	0.110	5.79E-02
ENSG00000280388	AC006330.1	0.029	5.79E-02
ENSG00000265078	RN7SL664P	0.072	5.79E-02
ENSG00000226445	BX322234.1	-0.082	5.79E-02

ENSG00000278463	H2AC4	0.065	5.80E-02
ENSG00000163702	IL17RC	0.081	5.81E-02
ENSG00000188312	CENPP	-0.087	5.81E-02
ENSG00000214745	GOT2P6	-0.083	5.81E-02
ENSG00000100379	KCTD17	-0.041	5.81E-02
ENSG00000108187	PBLD	0.039	5.81E-02
ENSG00000108599	AKAP10	0.019	5.81E-02
ENSG00000149716	LTO1	-0.023	5.81E-02
ENSG00000136231	IGF2BP3	0.071	5.82E-02
ENSG00000120526	NUDCD1	-0.039	5.82E-02
ENSG00000196172	ZNF681	-0.054	5.82E-02
ENSG00000173457	PPP1R14B	-0.036	5.82E-02
ENSG00000176749	CDK5R1	0.048	5.82E-02
ENSG00000146757	ZNF92	-0.047	5.82E-02
ENSG00000280213	UCKL1-AS1	0.069	5.82E-02
ENSG00000112218	GPR63	-0.082	5.82E-02
ENSG00000127362	TAS2R3	-0.054	5.82E-02
ENSG00000230454	U73166.1	0.047	5.82E-02
ENSG00000119318	RAD23B	0.025	5.82E-02
ENSG00000032444	PNPLA6	0.034	5.83E-02
ENSG00000166347	CYB5A	-0.037	5.83E-02
ENSG00000165140	FBP1	0.036	5.83E-02
ENSG00000131748	STARD3	0.025	5.83E-02
ENSG00000091831	ESR1	-0.116	5.83E-02
ENSG00000159674	SPON2	-0.060	5.83E-02
ENSG00000260641	AC114811.2	-0.062	5.83E-02
ENSG00000119396	RAB14	0.017	5.83E-02
ENSG00000167380	ZNF226	-0.033	5.83E-02
ENSG00000106546	AHR	0.033	5.84E-02
ENSG00000272145	NFYC-AS1	-0.032	5.84E-02
ENSG00000148488	ST8SIA6	0.054	5.84E-02
ENSG00000285338	AC091564.7	-0.185	5.84E-02
ENSG00000133800	LYVE1	0.078	5.84E-02
ENSG00000160055	TMEM234	0.030	5.84E-02
ENSG00000186635	ARAP1	0.044	5.84E-02
ENSG00000079308	TNS1	-0.093	5.85E-02
ENSG00000144026	ZNF514	-0.031	5.85E-02
ENSG00000065923	SLC9A7	-0.041	5.86E-02
ENSG00000117222	RBBP5	0.016	5.87E-02
ENSG00000273373	AL355488.1	-0.027	5.88E-02
ENSG00000172824	CES4A	-0.048	5.88E-02
ENSG00000261771	DNAAF4-CCPG1	0.193	5.88E-02
ENSG00000103932	RPAP1	-0.053	5.88E-02
ENSG00000260398	AC068700.1	-0.086	5.88E-02
ENSG00000272335	AC093297.2	-0.028	5.88E-02
ENSG00000254815	LMNTD2-AS1	-0.103	5.88E-02
ENSG00000173402	DAG1	-0.057	5.90E-02

ENSG00000100883	SRP54	0.018	5.90E-02
ENSG00000198860	TSEN15	-0.026	5.90E-02
ENSG00000082515	MRPL22	-0.042	5.90E-02
ENSG00000200087	SNORA73B	0.078	5.91E-02
ENSG00000206562	METTL6	-0.027	5.91E-02
ENSG00000100342	APOL1	0.046	5.92E-02
ENSG00000174748	RPL15	-0.035	5.92E-02
ENSG00000225975	LINC01534	-0.038	5.92E-02
ENSG00000182117	NOP10	0.032	5.93E-02
ENSG00000273447	AC004067.1	-0.063	5.93E-02
ENSG00000269335	IKBKG	0.030	5.94E-02
ENSG00000133789	SWAP70	-0.032	5.94E-02
ENSG00000268849	SIGLEC22P	0.062	5.96E-02
ENSG00000165821	SALL2	-0.084	5.98E-02
ENSG00000121753	ADGRB2	-0.111	5.99E-02
ENSG00000124507	PACSIN1	-0.132	5.99E-02
ENSG00000225091	SNORA71A	0.078	5.99E-02
ENSG00000138018	SELENOI	-0.038	6.00E-02
ENSG00000279349	AC092692.1	0.051	6.00E-02
ENSG00000078114	NEBL	-0.212	6.00E-02
ENSG00000120699	EXOSC8	-0.033	6.00E-02
ENSG00000115524	SF3B1	0.022	6.00E-02
ENSG00000263465	SRSF8	-0.032	6.00E-02
ENSG00000176728	TTY14	0.051	6.00E-02
ENSG00000115419	GLS	-0.020	6.01E-02
ENSG00000198918	RPL39	-0.090	6.01E-02
ENSG00000066697	MSANTD3	-0.035	6.01E-02
ENSG00000163545	NUAK2	0.039	6.01E-02
ENSG00000138674	SEC31A	-0.024	6.01E-02
ENSG00000105887	MTPN	0.028	6.01E-02
ENSG00000119977	TCTN3	-0.027	6.01E-02
ENSG00000159023	EPB41	-0.068	6.02E-02
ENSG00000223509	AC135983.2	-0.042	6.02E-02
ENSG00000100028	SNRPD3	-0.027	6.02E-02
ENSG00000079785	DDX1	-0.023	6.02E-02
ENSG00000141642	ELAC1	-0.034	6.03E-02
ENSG00000163082	SGPP2	-0.061	6.04E-02
ENSG00000186481	ANKRD20A5P	-0.063	6.04E-02
ENSG00000145725	PIIP5K2	0.027	6.05E-02
ENSG00000026036	RTEL1-TNFRSF6B	-0.067	6.07E-02
ENSG00000205060	SLC35B4	-0.031	6.07E-02
ENSG00000020256	ZFP64	-0.036	6.08E-02
ENSG00000162804	SNED1	-0.065	6.08E-02
ENSG00000131043	AAR2	-0.020	6.09E-02
ENSG00000141568	FOXK2	-0.026	6.09E-02
ENSG00000138385	SSB	-0.035	6.09E-02
ENSG00000259494	MRPL46	-0.033	6.10E-02

ENSG00000248919	ATP5MF-PTCD1	-0.110	6.10E-02
ENSG00000159840	ZYX	0.047	6.12E-02
ENSG00000288632	AC133555.6	-0.046	6.12E-02
ENSG00000225611	LINC02158	0.063	6.13E-02
ENSG00000141510	TP53	-0.023	6.13E-02
ENSG00000131469	RPL27	-0.066	6.13E-02
ENSG00000108352	RAPGEFL1	0.073	6.14E-02
ENSG00000164902	PHAX	-0.039	6.14E-02
ENSG00000164970	FAM219A	0.036	6.14E-02
ENSG00000285799	AL645929.2	-0.080	6.16E-02
ENSG00000130309	COLGALT1	0.025	6.17E-02
ENSG00000138617	PARP16	0.030	6.17E-02
ENSG00000259751	TUBAP11	-0.065	6.17E-02
ENSG00000108387	SEPTIN4	0.089	6.17E-02
ENSG00000086848	ALG9	-0.031	6.17E-02
ENSG00000095739	BAMBI	0.099	6.17E-02
ENSG00000131475	VPS25	0.022	6.18E-02
ENSG00000119760	SUPT7L	-0.020	6.18E-02
ENSG00000202538	RNU4-2	0.088	6.18E-02
ENSG00000114631	PODXL2	-0.073	6.18E-02
ENSG00000129473	BCL2L2	0.029	6.18E-02
ENSG00000132938	MTUS2	-0.142	6.18E-02
ENSG00000231769	AL035701.1	-0.085	6.18E-02
ENSG00000239407	Z68871.1	-0.046	6.18E-02
ENSG00000158417	EIF5B	-0.029	6.18E-02
ENSG00000287632	AC112253.1	-0.103	6.18E-02
ENSG00000228107	AP000692.1	0.043	6.18E-02
ENSG00000196187	TMEM63A	-0.041	6.18E-02
ENSG00000133561	GIMAP6	-0.022	6.18E-02
ENSG00000235781	LINC02569	0.074	6.18E-02
ENSG00000094914	AAAS	-0.030	6.19E-02
ENSG00000108826	MRPL27	-0.031	6.19E-02
ENSG00000107897	ACBD5	0.019	6.20E-02
ENSG00000223117	RN7SKP296	0.071	6.20E-02
ENSG00000276916	AL442125.2	0.083	6.21E-02
ENSG00000131845	ZNF304	-0.026	6.21E-02
ENSG00000105193	RPS16	-0.042	6.21E-02
ENSG00000198331	HYLS1	-0.035	6.21E-02
ENSG00000166377	ATP9B	-0.021	6.21E-02
ENSG00000110076	NRXN2	-0.147	6.21E-02
ENSG00000114391	RPL24	-0.047	6.21E-02
ENSG00000206341	HLA-H	0.093	6.21E-02
ENSG00000242094	FOXP1-IT1	0.050	6.23E-02
ENSG00000116704	SLC35D1	-0.018	6.23E-02
ENSG00000136193	SCRN1	-0.033	6.23E-02
ENSG00000125734	GPR108	0.028	6.23E-02
ENSG00000100292	HMOX1	0.042	6.23E-02

ENSG00000104973	MED25	0.045	6.23E-02
ENSG00000070366	SMG6	-0.037	6.24E-02
ENSG00000121895	TMEM156	-0.041	6.24E-02
ENSG00000086504	MRPL28	0.029	6.24E-02
ENSG00000106733	NMRK1	-0.032	6.25E-02
ENSG00000258461	AC012651.1	-0.034	6.25E-02
ENSG00000179222	MAGED1	-0.048	6.25E-02
ENSG00000211805	TRAV24	-0.086	6.26E-02
ENSG00000122884	P4HA1	0.026	6.27E-02
ENSG00000170430	MGMT	-0.033	6.27E-02
ENSG00000169740	ZNF32	-0.042	6.27E-02
ENSG00000083828	ZNF586	0.020	6.28E-02
ENSG00000065665	SEC61A2	0.049	6.28E-02
ENSG00000124224	PPP4R1L	0.043	6.29E-02
ENSG00000161558	TMEM143	-0.056	6.31E-02
ENSG00000244879	GABPB1-AS1	-0.044	6.32E-02
ENSG00000136436	CALCOCO2	0.021	6.32E-02
ENSG00000129515	SNX6	0.028	6.32E-02
ENSG00000185420	SMYD3	-0.038	6.32E-02
ENSG00000123485	HJURP	0.089	6.34E-02
ENSG00000197841	ZNF181	-0.052	6.34E-02
ENSG00000103264	FBXO31	-0.041	6.34E-02
ENSG00000161011	SQSTM1	0.031	6.34E-02
ENSG00000157349	DDX19B	-0.035	6.34E-02
ENSG00000279520	AC093525.8	0.070	6.34E-02
ENSG00000231125	AF129075.1	-0.070	6.35E-02
ENSG00000235192	AC009495.3	0.049	6.35E-02
ENSG00000124562	SNRPC	-0.031	6.35E-02
ENSG00000121864	ZNF639	-0.031	6.36E-02
ENSG00000162227	TAF6L	-0.041	6.36E-02
ENSG00000124713	GNMT	0.078	6.36E-02
ENSG00000116005	PCYOX1	-0.028	6.37E-02
ENSG00000067646	ZFY	-0.043	6.37E-02
ENSG00000069020	MAST4	-0.046	6.37E-02
ENSG00000186532	SMYD4	-0.030	6.37E-02
ENSG00000198663	C6orf89	0.018	6.37E-02
ENSG00000163170	BOLA3	-0.053	6.38E-02
ENSG00000174442	ZWILCH	-0.057	6.38E-02
ENSG00000142065	ZFP14	-0.031	6.38E-02
ENSG00000286546	AL079338.1	-0.113	6.38E-02
ENSG00000143367	TUFT1	0.047	6.38E-02
ENSG00000118454	ANKRD13C	-0.028	6.39E-02
ENSG00000103353	UBFD1	-0.030	6.39E-02
ENSG00000139146	SINHCAF	-0.024	6.39E-02
ENSG00000236194	AC099811.1	0.033	6.39E-02
ENSG00000255328	AC136475.5	0.117	6.40E-02
ENSG00000256660	CLEC12B	0.088	6.40E-02

ENSG00000279356	AC007610.4	-0.043	6.40E-02
ENSG00000168288	MMADHC	0.023	6.40E-02
ENSG00000185031	SLC2A3P2	0.067	6.41E-02
ENSG00000145743	FBXL17	-0.036	6.41E-02
ENSG00000138495	COX17	-0.031	6.41E-02
ENSG00000156508	EEF1A1	-0.043	6.41E-02
ENSG00000287252	AL009179.1	-0.077	6.42E-02
ENSG00000270362	HMG3-AS1	-0.062	6.43E-02
ENSG00000274752	TRBV12-3	-0.063	6.44E-02
ENSG00000258559	AC005519.1	-0.055	6.44E-02
ENSG00000108309	RUNDC3A	-0.098	6.45E-02
ENSG00000157601	MX1	0.086	6.45E-02
ENSG00000197013	ZNF429	0.047	6.46E-02
ENSG00000173442	EHBP1L1	0.029	6.47E-02
ENSG00000167550	RHEBL1	-0.064	6.47E-02
ENSG00000077312	SNRPA	-0.027	6.48E-02
ENSG00000175294	CATSPER1	0.061	6.48E-02
ENSG00000132906	CASP9	0.034	6.48E-02
ENSG00000170634	ACYP2	-0.028	6.49E-02
ENSG00000172466	ZNF24	0.017	6.49E-02
ENSG00000063601	MTMR1	-0.021	6.49E-02
ENSG00000125454	SLC25A19	-0.036	6.49E-02
ENSG00000196262	PPIA	-0.033	6.50E-02
ENSG00000203497	PDCD4-AS1	0.045	6.50E-02
ENSG00000187109	NAP1L1	-0.021	6.51E-02
ENSG00000163512	AZI2	0.032	6.52E-02
ENSG00000118412	CASP8AP2	-0.027	6.52E-02
ENSG00000261471	AC092145.1	0.054	6.52E-02
ENSG00000197182	MIRLET7BHG	0.048	6.52E-02
ENSG00000163320	CGGBP1	0.015	6.52E-02
ENSG00000059758	CDK17	0.017	6.53E-02
ENSG00000137959	IFI44L	0.123	6.53E-02
ENSG00000254685	FPGT	0.034	6.53E-02
ENSG00000256588	AC027544.2	0.074	6.53E-02
ENSG00000203999	LINC01270	0.077	6.54E-02
ENSG00000170445	HARS1	-0.015	6.54E-02
ENSG00000272583	AL592494.2	-0.080	6.54E-02
ENSG00000132530	XAF1	0.064	6.54E-02
ENSG00000152683	SLC30A6	0.024	6.54E-02
ENSG00000188976	NOC2L	-0.033	6.55E-02
ENSG00000177697	CD151	0.055	6.56E-02
ENSG00000206047	DEFA1	0.249	6.56E-02
ENSG00000157985	AGAP1	-0.079	6.56E-02
ENSG00000143106	PSMA5	-0.021	6.57E-02
ENSG00000124333	VAMP7	0.028	6.57E-02
ENSG00000178904	DPY19L3	0.036	6.57E-02
ENSG00000235106	BRD3OS	-0.050	6.57E-02

ENSG0000010361	FUZ	0.038	6.57E-02
ENSG00000152439	ZNF773	-0.036	6.58E-02
ENSG00000100442	FKBP3	-0.035	6.58E-02
ENSG00000182359	KBTBD3	-0.040	6.58E-02
ENSG00000263731	AC145207.5	-0.036	6.58E-02
ENSG00000204305	AGER	0.046	6.58E-02
ENSG00000244378	RPS2P45	-0.060	6.58E-02
ENSG00000213015	ZNF580	-0.033	6.59E-02
ENSG00000003400	CASP10	0.021	6.59E-02
ENSG00000134864	GGACT	-0.053	6.59E-02
ENSG00000224177	LINC00570	-0.091	6.60E-02
ENSG00000234327	ZNF232-AS1	-0.093	6.60E-02
ENSG00000246582	AC100861.1	-0.049	6.60E-02
ENSG00000279722	AC007342.7	0.039	6.60E-02
ENSG00000172530	BANP	0.026	6.61E-02
ENSG00000170035	UBE2E3	0.035	6.61E-02
ENSG00000159685	CHCHD6	-0.052	6.62E-02
ENSG00000112996	MRPS30	-0.022	6.63E-02
ENSG00000183696	UPP1	0.025	6.64E-02
ENSG00000138709	LARP1B	-0.027	6.64E-02
ENSG00000111215	PRR4	-0.091	6.64E-02
ENSG00000127903	ZNF835	-0.073	6.64E-02
ENSG00000267673	FDX2	-0.060	6.65E-02
ENSG00000204842	ATXN2	-0.038	6.65E-02
ENSG00000274021	AC024909.1	0.043	6.66E-02
ENSG00000211625	IGKV3D-20	-0.139	6.66E-02
ENSG00000257261	AC008014.1	-0.037	6.66E-02
ENSG00000267838	AC245884.8	-0.065	6.66E-02
ENSG00000266910	AC008507.1	-0.061	6.66E-02
ENSG00000182628	SKA2	-0.039	6.66E-02
ENSG00000151079	KCNA6	-0.073	6.66E-02
ENSG00000158079	PTPDC1	-0.031	6.66E-02
ENSG00000221968	FADS3	-0.057	6.67E-02
ENSG00000283063	TRBV6-2	-0.081	6.67E-02
ENSG00000157216	SSBP3	-0.042	6.67E-02
ENSG00000173085	COQ2	0.027	6.68E-02
ENSG00000234902	AC007879.3	0.090	6.68E-02
ENSG00000253535	AC120193.1	-0.086	6.69E-02
ENSG00000250299	MRPS31P4	-0.071	6.69E-02
ENSG00000267632	AC067852.3	0.057	6.70E-02
ENSG00000256628	ZBTB11-AS1	-0.024	6.70E-02
ENSG00000029534	ANK1	-0.083	6.70E-02
ENSG00000130433	CACNG6	0.102	6.70E-02
ENSG00000162402	USP24	-0.023	6.70E-02
ENSG00000137821	LRRC49	-0.149	6.71E-02
ENSG00000224796	RPL32P1	-0.061	6.71E-02
ENSG00000253981	ALG1L13P	0.057	6.71E-02

ENSG00000198836	OPA1	-0.024	6.71E-02
ENSG00000089335	ZNF302	-0.037	6.71E-02
ENSG00000134627	PIWIL4	0.047	6.71E-02
ENSG00000163993	S100P	0.113	6.71E-02
ENSG00000106066	CPVL	0.036	6.71E-02
ENSG00000014641	MDH1	-0.023	6.71E-02
ENSG00000103043	VAC14	-0.029	6.71E-02
ENSG00000279555	AC091181.1	-0.051	6.72E-02
ENSG00000179583	CIITA	-0.040	6.72E-02
ENSG00000175611	LINC00476	-0.035	6.72E-02
ENSG00000178404	CEP295NL	0.075	6.72E-02
ENSG00000090263	MRPS33	-0.056	6.73E-02
ENSG00000196182	STK40	0.038	6.73E-02
ENSG00000103160	HSDL1	0.025	6.73E-02
ENSG00000075618	FSCN1	0.076	6.73E-02
ENSG00000130413	STK33	-0.102	6.73E-02
ENSG00000277147	LINC00869	-0.029	6.74E-02
ENSG00000120798	NR2C1	-0.031	6.74E-02
ENSG00000276853	AC026124.2	0.036	6.74E-02
ENSG00000054219	LY75	0.023	6.74E-02
ENSG00000283633	AP000547.3	0.099	6.74E-02
ENSG00000188283	ZNF383	-0.027	6.74E-02
ENSG00000167110	GOLGA2	0.028	6.74E-02
ENSG00000185052	SLC24A3	0.066	6.74E-02
ENSG00000166436	TRIM66	-0.048	6.75E-02
ENSG00000243896	OR2A7	-0.138	6.75E-02
ENSG00000100003	SEC14L2	-0.076	6.76E-02
ENSG00000110583	NAA40	-0.046	6.77E-02
ENSG00000251136	AF117829.1	-0.036	6.78E-02
ENSG00000174885	NLRP6	0.054	6.78E-02
ENSG00000139725	RHOF	-0.023	6.78E-02
ENSG00000207233	SNORA37	0.074	6.78E-02
ENSG00000258102	MAP1LC3B2	0.087	6.78E-02
ENSG00000179593	ALOX15B	0.103	6.79E-02
ENSG00000277130	AC073569.3	0.041	6.79E-02
ENSG00000160695	VPS11	-0.018	6.80E-02
ENSG00000197816	CCDC180	-0.067	6.80E-02
ENSG00000170266	GLB1	0.026	6.80E-02
ENSG00000273320	AC007032.1	0.057	6.81E-02
ENSG00000074201	CLNS1A	-0.030	6.81E-02
ENSG00000166181	API5	-0.018	6.81E-02
ENSG00000213689	TREX1	0.045	6.82E-02
ENSG00000266236	NARF-IT1	0.058	6.83E-02
ENSG00000186666	BCDIN3D	-0.029	6.83E-02
ENSG00000270231	NBPF8	-0.048	6.83E-02
ENSG00000236576	AC241520.1	-0.069	6.84E-02
ENSG00000171204	TMEM126B	-0.040	6.84E-02

ENSG00000152894	PTPRK	-0.085	6.85E-02
ENSG00000141665	FBXO15	-0.094	6.85E-02
ENSG00000128191	DGCR8	-0.033	6.85E-02
ENSG00000172757	CFL1	0.023	6.85E-02
ENSG00000103227	LMF1	-0.036	6.85E-02
ENSG00000137207	YIPF3	0.030	6.86E-02
ENSG00000072694	FCGR2B	0.062	6.86E-02
ENSG00000145390	USP53	-0.044	6.86E-02
ENSG00000148498	PARD3	0.081	6.86E-02
ENSG00000147121	KRBOX4	-0.026	6.86E-02
ENSG00000214274	ANG	0.068	6.86E-02
ENSG00000178449	COX14	-0.037	6.86E-02
ENSG00000253919	THAP12P7	-0.071	6.86E-02
ENSG00000113368	LMNB1	0.045	6.86E-02
ENSG00000110628	SLC22A18	0.049	6.86E-02
ENSG00000224790	AP000704.1	-0.080	6.86E-02
ENSG00000154655	L3MBTL4	-0.062	6.86E-02
ENSG00000065978	YBX1	-0.052	6.87E-02
ENSG00000008311	AASS	-0.058	6.87E-02
ENSG00000131089	ARHGEF9	-0.033	6.88E-02
ENSG00000114948	ADAM23	-0.091	6.88E-02
ENSG00000100345	MYH9	0.032	6.88E-02
ENSG00000232104	RFX3-AS1	-0.054	6.88E-02
ENSG00000171100	MTM1	0.020	6.90E-02
ENSG00000132294	EFR3A	0.016	6.90E-02
ENSG00000162600	OMA1	-0.025	6.90E-02
ENSG00000204634	TBC1D8	0.039	6.90E-02
ENSG00000287725	AP003071.5	0.089	6.90E-02
ENSG00000165060	FXN	-0.035	6.90E-02
ENSG00000124701	APOBEC2	-0.113	6.91E-02
ENSG00000177058	SLC38A9	-0.026	6.93E-02
ENSG00000285572	AL136441.1	0.101	6.93E-02
ENSG00000249258	AC079193.2	-0.085	6.93E-02
ENSG00000168062	BATF2	0.104	6.93E-02
ENSG00000198786	MT-ND5	0.056	6.94E-02
ENSG00000182979	MTA1	-0.033	6.94E-02
ENSG00000164180	TMEM161B	-0.025	6.94E-02
ENSG00000258366	RTEL1	-0.046	6.94E-02
ENSG00000198554	WDHD1	-0.043	6.95E-02
ENSG00000112245	PTP4A1	0.081	6.96E-02
ENSG00000204371	EHMT2	-0.028	6.96E-02
ENSG00000135636	DYSF	0.061	6.98E-02
ENSG00000080947	CROCCP3	-0.050	6.98E-02
ENSG00000229331	GK-IT1	0.088	6.98E-02
ENSG00000183837	PNMA3	-0.066	6.98E-02
ENSG00000267123	SCAT1	-0.097	6.98E-02
ENSG00000213186	TRIM59	-0.033	6.98E-02

ENSG00000120156	TEK	0.121	6.99E-02
ENSG00000145907	G3BP1	-0.026	6.99E-02
ENSG00000182472	CAPN12	-0.059	6.99E-02
ENSG00000073605	GSDMB	-0.036	6.99E-02
ENSG00000159842	ABR	0.038	7.00E-02
ENSG00000141699	RETREG3	-0.017	7.01E-02
ENSG00000083444	PLOD1	0.036	7.02E-02
ENSG00000169635	HIC2	-0.022	7.02E-02
ENSG00000175505	CLCF1	-0.051	7.02E-02
ENSG00000167987	VPS37C	0.047	7.03E-02
ENSG00000008838	MED24	-0.033	7.03E-02
ENSG00000175182	FAM131A	0.031	7.03E-02
ENSG00000038945	MSR1	0.081	7.03E-02
ENSG00000198719	DLL1	-0.080	7.03E-02
ENSG00000228486	C2orf92	-0.051	7.04E-02
ENSG00000159131	GART	-0.021	7.05E-02
ENSG00000110514	MADD	-0.031	7.06E-02
ENSG00000160013	PTGIR	0.044	7.07E-02
ENSG00000231999	LRRC8C-DT	-0.041	7.07E-02
ENSG00000288558	DUS4L-BCAP29	-0.033	7.08E-02
ENSG00000157554	ERG	0.114	7.08E-02
ENSG00000074582	BCS1L	-0.036	7.08E-02
ENSG00000112739	PRPF4B	-0.018	7.09E-02
ENSG00000179454	KLHL28	0.016	7.11E-02
ENSG00000100412	ACO2	-0.020	7.12E-02
ENSG00000120318	ARAP3	0.052	7.12E-02
ENSG00000161912	ADCY10P1	0.037	7.12E-02
ENSG00000253276	CCDC71L	0.039	7.13E-02
ENSG00000272906	AL353708.3	0.041	7.13E-02
ENSG00000231304	SGO1-AS1	-0.057	7.13E-02
ENSG00000157404	KIT	0.064	7.13E-02
ENSG00000286753	AC091978.1	-0.047	7.15E-02
ENSG00000277142	LINC00235	-0.037	7.15E-02
ENSG00000085662	AKR1B1	-0.025	7.16E-02
ENSG00000144451	SPAG16	-0.053	7.17E-02
ENSG00000257497	AC121761.1	-0.067	7.17E-02
ENSG00000155189	AGPAT5	-0.032	7.17E-02
ENSG00000111276	CDKN1B	0.019	7.17E-02
ENSG00000081985	IL12RB2	-0.075	7.17E-02
ENSG00000172954	LCLAT1	-0.039	7.17E-02
ENSG00000160799	CCDC12	-0.021	7.18E-02
ENSG00000096746	HNRNPH3	0.021	7.18E-02
ENSG00000131165	CHMP1A	0.027	7.18E-02
ENSG00000239653	PSMD6-AS2	0.028	7.18E-02
ENSG00000257950	P2RX5-TAX1BP3	-0.075	7.18E-02
ENSG00000197599	CCDC154	-0.113	7.18E-02
ENSG00000211895	IGHA1	0.106	7.18E-02

ENSG00000171466	ZNF562	-0.026	7.18E-02
ENSG00000114767	RRP9	-0.033	7.18E-02
ENSG00000270069	MIR222HG	-0.046	7.18E-02
ENSG00000177731	FLII	0.024	7.18E-02
ENSG00000073417	PDE8A	-0.034	7.18E-02
ENSG00000090861	AARS1	-0.025	7.19E-02
ENSG00000176624	MEX3C	-0.023	7.20E-02
ENSG00000239203	AC093484.1	-0.078	7.20E-02
ENSG00000082293	COL19A1	-0.089	7.20E-02
ENSG00000197548	ATG7	0.029	7.20E-02
ENSG00000248785	HIGD1AP14	-0.076	7.20E-02
ENSG00000075131	TIPIN	-0.047	7.20E-02
ENSG00000005436	GCFC2	-0.037	7.20E-02
ENSG00000198000	NOL8	-0.022	7.22E-02
ENSG00000165868	HSPA12A	-0.097	7.22E-02
ENSG00000096080	MRPS18A	-0.024	7.23E-02
ENSG00000267731	AC005332.2	-0.050	7.23E-02
ENSG00000138138	ATAD1	-0.024	7.24E-02
ENSG00000104427	ZC2HC1A	0.055	7.24E-02
ENSG00000237484	LINC01684	-0.044	7.24E-02
ENSG00000063180	CA11	-0.095	7.24E-02
ENSG00000275120	AC048382.5	-0.039	7.25E-02
ENSG00000278974	AC093909.6	-0.057	7.25E-02
ENSG00000164659	ELAPOR2	-0.077	7.26E-02
ENSG00000269399	AC008764.6	0.042	7.28E-02
ENSG00000187688	TRPV2	-0.024	7.28E-02
ENSG00000125637	PSD4	0.025	7.29E-02
ENSG00000225921	NOL7	-0.022	7.29E-02
ENSG00000166582	CENPV	-0.054	7.30E-02
ENSG00000168172	HOOK3	0.023	7.30E-02
ENSG00000139651	ZNF740	-0.020	7.30E-02
ENSG00000117115	PADI2	0.067	7.30E-02
ENSG00000101353	MROH8	-0.086	7.30E-02
ENSG00000279082	LINC01727	-0.074	7.31E-02
ENSG00000271966	AC021321.1	0.051	7.32E-02
ENSG00000110851	PRDM4	-0.021	7.32E-02
ENSG00000140943	MBTPS1	-0.019	7.32E-02
ENSG00000277767	AL442128.2	-0.051	7.32E-02
ENSG00000277117	FP565260.3	-0.163	7.32E-02
ENSG00000139746	RBM26	-0.020	7.33E-02
ENSG00000162913	OBSCN-AS1	-0.091	7.34E-02
ENSG00000115970	THADA	-0.021	7.34E-02
ENSG00000201428	RN7SKP71	0.071	7.34E-02
ENSG00000213178	RPL22P1	0.229	7.35E-02
ENSG00000135637	CCDC142	-0.023	7.36E-02
ENSG00000141279	NPEPPS	0.036	7.36E-02
ENSG00000092199	HNRNPC	0.016	7.36E-02

ENSG00000286381	AL078622.1	-0.128	7.37E-02
ENSG00000288649	ACTL10	-0.104	7.38E-02
ENSG00000166454	ATMIN	-0.018	7.38E-02
ENSG00000133321	PLAAT4	-0.034	7.38E-02
ENSG00000206633	SNORA80B	0.081	7.38E-02
ENSG00000225345	SNX18P3	-0.068	7.38E-02
ENSG00000115282	TTC31	-0.028	7.39E-02
ENSG00000255163	HSPE1P18	0.040	7.40E-02
ENSG00000160949	TONSL	-0.057	7.40E-02
ENSG00000198873	GRK5	0.021	7.41E-02
ENSG00000165943	MOAP1	-0.022	7.41E-02
ENSG00000255197	AC090559.1	0.040	7.42E-02
ENSG00000164330	EBF1	-0.086	7.42E-02
ENSG00000274767	AC243829.1	0.104	7.42E-02
ENSG00000168675	LDLRAD4	-0.034	7.42E-02
ENSG00000167460	TPM4	0.027	7.42E-02
ENSG00000050748	MAPK9	-0.019	7.42E-02
ENSG00000204613	TRIM10	-0.081	7.42E-02
ENSG00000272669	AL021707.6	0.070	7.43E-02
ENSG00000147535	PLPP5	-0.041	7.43E-02
ENSG00000083807	SLC27A5	-0.056	7.44E-02
ENSG00000132128	LRRC41	-0.016	7.44E-02
ENSG00000166171	DPCD	-0.068	7.44E-02
ENSG00000039560	RAI14	-0.138	7.45E-02
ENSG00000257818	C1GALT1P1	-0.054	7.45E-02
ENSG00000177084	POLE	-0.042	7.45E-02
ENSG00000196542	SPTSSB	-0.101	7.45E-02
ENSG00000256053	COA8	-0.032	7.46E-02
ENSG00000167553	TUBA1C	0.030	7.47E-02
ENSG00000196275	GTF2IRD2	-0.051	7.47E-02
ENSG00000158716	DUSP23	0.032	7.47E-02
ENSG00000083814	ZNF671	-0.022	7.49E-02
ENSG00000272368	AC074032.1	-0.062	7.49E-02
ENSG00000129084	PSMA1	0.017	7.49E-02
ENSG00000198440	ZNF583	-0.043	7.50E-02
ENSG00000198590	C3orf35	-0.033	7.51E-02
ENSG00000287848	AL355303.2	-0.102	7.53E-02
ENSG00000126524	SBDS	-0.032	7.53E-02
ENSG00000211817	TRAV38-2DV8	-0.067	7.53E-02
ENSG00000100104	SRRD	-0.061	7.54E-02
ENSG00000170275	CRTAP	0.026	7.55E-02
ENSG00000140598	EFL1	-0.031	7.55E-02
ENSG00000203709	MIR29B2CHG	0.034	7.56E-02
ENSG00000092067	CEBPE	0.068	7.56E-02
ENSG00000130649	CYP2E1	-0.111	7.56E-02
ENSG00000181458	TMEM45A	0.056	7.56E-02
ENSG00000196378	ZNF34	-0.031	7.57E-02

ENSG00000183850	ZNF730	-0.134	7.58E-02
ENSG00000172992	DCAKD	-0.026	7.59E-02
ENSG00000101639	CEP192	-0.019	7.59E-02
ENSG00000198420	TCAF1	-0.036	7.59E-02
ENSG00000112992	NNT	-0.022	7.60E-02
ENSG00000140678	ITGAX	0.048	7.60E-02
ENSG00000269961	AC010359.2	0.055	7.60E-02
ENSG00000168476	REEP4	0.041	7.61E-02
ENSG00000156504	FAM122B	-0.031	7.62E-02
ENSG00000188001	TPRG1	-0.070	7.62E-02
ENSG00000111331	OAS3	0.088	7.63E-02
ENSG00000243664	RPS29P12	0.090	7.64E-02
ENSG00000286236	AC018755.5	0.085	7.64E-02
ENSG00000105643	ARRDC2	-0.018	7.65E-02
ENSG00000231793	DOC2GP	-0.090	7.66E-02
ENSG00000239948	RN7SL368P	0.066	7.66E-02
ENSG00000132170	PPARG	0.106	7.66E-02
ENSG00000117228	GBP1	0.058	7.66E-02
ENSG00000242258	LINC00996	-0.090	7.66E-02
ENSG00000099337	KCNK6	0.028	7.67E-02
ENSG00000162444	RBP7	0.048	7.67E-02
ENSG00000225411	CR786580.1	0.081	7.68E-02
ENSG00000124104	SNX21	0.046	7.69E-02
ENSG00000156265	MAP3K7CL	0.054	7.69E-02
ENSG00000163125	RPRD2	-0.030	7.69E-02
ENSG00000162623	TYW3	-0.033	7.69E-02
ENSG00000136261	BZW2	-0.023	7.69E-02
ENSG00000127184	COX7C	-0.067	7.69E-02
ENSG00000204632	HLA-G	0.120	7.69E-02
ENSG00000105889	STEAP1B	-0.081	7.69E-02
ENSG00000278705	H4C2	-0.044	7.69E-02
ENSG00000159899	NPR2	-0.075	7.69E-02
ENSG00000013561	RNF14	-0.048	7.70E-02
ENSG00000162825	NBPF20	-0.042	7.71E-02
ENSG00000283537	AC073264.3	-0.239	7.72E-02
ENSG00000176095	IP6K1	0.035	7.72E-02
ENSG00000173905	GOLIM4	0.036	7.73E-02
ENSG00000153015	CWC27	-0.029	7.73E-02
ENSG00000250305	TRMT9B	0.125	7.73E-02
ENSG00000162664	ZNF326	-0.027	7.75E-02
ENSG00000287202	AC008119.1	0.061	7.75E-02
ENSG00000146243	IRAK1BP1	-0.045	7.75E-02
ENSG00000164221	CCDC112	0.040	7.75E-02
ENSG00000268403	AC132192.2	-0.041	7.75E-02
ENSG00000165240	ATP7A	0.022	7.76E-02
ENSG00000077549	CAPZB	0.021	7.76E-02
ENSG00000111725	PRKAB1	0.027	7.76E-02

ENSG00000206530	CFAP44	-0.048	7.76E-02
ENSG00000137288	UQCC2	-0.045	7.76E-02
ENSG00000168724	DNAJC21	-0.028	7.76E-02
ENSG00000044115	CTNNA1	0.034	7.76E-02
ENSG00000248643	RBM14-RBM4	-0.040	7.77E-02
ENSG00000166289	PLEKHF1	-0.042	7.78E-02
ENSG00000198830	HMG2	0.019	7.80E-02
ENSG00000164039	BDH2	-0.052	7.80E-02
ENSG00000187243	MAGED4B	-0.108	7.81E-02
ENSG00000223653	AL078459.1	-0.103	7.82E-02
ENSG00000119446	RBM18	0.024	7.82E-02
ENSG00000127081	ZNF484	-0.029	7.82E-02
ENSG00000197705	KLHL14	-0.070	7.82E-02
ENSG00000231233	CFAP58-DT	0.067	7.82E-02
ENSG00000114127	XRN1	0.025	7.82E-02
ENSG00000276966	H4C5	-0.039	7.83E-02
ENSG00000151746	BICD1	-0.040	7.83E-02
ENSG00000214534	ZNF705E	-0.069	7.84E-02
ENSG00000198920	KIAA0753	0.031	7.84E-02
ENSG00000161133	USP41	0.151	7.84E-02
ENSG00000183155	RAB1F	0.015	7.84E-02
ENSG00000268173	AC007192.1	0.202	7.84E-02
ENSG00000279283	AC131009.4	0.059	7.84E-02
ENSG00000251432	LINC02615	-0.055	7.84E-02
ENSG00000070915	SLC12A3	-0.109	7.85E-02
ENSG00000121281	ADCY7	0.019	7.86E-02
ENSG00000058729	RIOK2	-0.036	7.86E-02
ENSG00000119457	SLC46A2	0.041	7.86E-02
ENSG00000168556	ING2	0.034	7.86E-02
ENSG00000137574	TGS1	-0.021	7.86E-02
ENSG00000143811	PYCR2	-0.021	7.86E-02
ENSG00000173681	BCLAF3	0.024	7.87E-02
ENSG00000173575	CHD2	0.014	7.87E-02
ENSG00000196419	XRCC6	-0.021	7.87E-02
ENSG00000144674	GOLGA4	-0.019	7.87E-02
ENSG00000141232	TOB1	0.022	7.88E-02
ENSG00000011304	PTBP1	-0.020	7.88E-02
ENSG00000276141	WHAMMP3	-0.041	7.88E-02
ENSG00000067798	NAV3	0.106	7.89E-02
ENSG00000263464	PPIAL4C	-0.147	7.89E-02
ENSG00000153774	CFDP1	-0.025	7.89E-02
ENSG00000134046	MBD2	0.028	7.89E-02
ENSG00000214655	ZSWIM8	0.039	7.90E-02
ENSG00000104613	INTS10	-0.019	7.90E-02
ENSG00000198093	ZNF649	-0.027	7.90E-02
ENSG00000182287	AP1S2	0.040	7.90E-02
ENSG00000174903	RAB1B	0.028	7.90E-02

ENSG00000280383	Z95331.1	-0.032	7.90E-02
ENSG00000021300	PLEKHB1	-0.051	7.90E-02
ENSG00000149503	INCENP	-0.049	7.92E-02
ENSG00000101447	FAM83D	-0.060	7.92E-02
ENSG00000287382	AC110611.2	-0.057	7.93E-02
ENSG00000187097	ENTPD5	-0.041	7.93E-02
ENSG00000174796	THAP6	-0.022	7.95E-02
ENSG00000260711	AL121839.2	-0.046	7.96E-02
ENSG00000231889	TRAF3IP2-AS1	-0.036	7.96E-02
ENSG00000012174	MBTPS2	-0.027	7.97E-02
ENSG00000234171	RNASEH1-AS1	-0.055	7.97E-02
ENSG00000231697	NANOGP5	-0.056	7.98E-02
ENSG00000205937	RNPS1	-0.015	7.98E-02
ENSG00000164181	ELOVL7	0.074	7.98E-02
ENSG00000234129	AC073529.1	-0.075	7.99E-02
ENSG00000181722	ZBTB20	-0.027	7.99E-02
ENSG00000135999	EPC2	0.016	7.99E-02
ENSG00000121903	ZSCAN20	-0.033	7.99E-02
ENSG00000112357	PEX7	-0.036	7.99E-02
ENSG00000085982	USP40	-0.039	7.99E-02
ENSG00000251562	MALAT1	0.019	7.99E-02
ENSG00000266088	AC004585.1	-0.063	7.99E-02
ENSG00000123610	TNFAIP6	0.071	7.99E-02
ENSG00000213762	ZNF134	-0.029	7.99E-02
ENSG00000280190	AC027279.4	-0.099	8.00E-02
ENSG00000244682	FCGR2C	0.057	8.00E-02
ENSG00000183474	GTF2H2C	0.032	8.01E-02
ENSG00000183049	CAMK1D	0.038	8.02E-02
ENSG00000151575	TEX9	-0.066	8.02E-02
ENSG00000078596	ITM2A	-0.045	8.02E-02
ENSG00000110723	EXPH5	-0.061	8.02E-02
ENSG00000165861	ZFYVE1	0.026	8.02E-02
ENSG00000008128	CDK11A	0.034	8.02E-02
ENSG00000072071	ADGRL1	-0.071	8.03E-02
ENSG00000161381	PLXDC1	-0.062	8.05E-02
ENSG00000173141	MRPL57	-0.029	8.05E-02
ENSG00000227388	AL133410.1	-0.067	8.06E-02
ENSG00000221886	ZBED8	0.048	8.06E-02
ENSG00000068079	IFI35	0.045	8.06E-02
ENSG00000131899	LLGL1	-0.028	8.07E-02
ENSG00000258725	PRC1-AS1	-0.089	8.07E-02
ENSG00000169313	P2RY12	0.059	8.07E-02
ENSG00000162522	KIAA1522	0.100	8.07E-02
ENSG00000165494	PCF11	0.014	8.08E-02
ENSG00000176268	CYCSP34	-0.079	8.08E-02
ENSG00000164120	HPGD	0.054	8.08E-02
ENSG00000081870	HSPB11	-0.026	8.08E-02

ENSG00000134987	WDR36	-0.025	8.08E-02
ENSG00000108846	ABCC3	0.066	8.08E-02
ENSG00000196843	ARID5A	0.029	8.08E-02
ENSG00000227896	AL731569.1	-0.043	8.08E-02
ENSG00000206560	ANKRD28	0.029	8.08E-02
ENSG00000259687	LINC01220	0.082	8.08E-02
ENSG00000215559	ANKRD20A11P	-0.148	8.09E-02
ENSG00000229816	DDX50P1	-0.035	8.09E-02
ENSG00000141026	MED9	-0.024	8.09E-02
ENSG00000235944	ZNF815P	-0.034	8.09E-02
ENSG00000136810	TXN	0.042	8.10E-02
ENSG00000242999	RN7SL239P	0.046	8.10E-02
ENSG00000237272	OR51R1P	0.063	8.11E-02
ENSG00000133740	E2F5	-0.057	8.11E-02
ENSG00000116747	RO60	0.017	8.11E-02
ENSG00000130511	SSBP4	-0.041	8.12E-02
ENSG00000230303	AL353743.2	-0.078	8.12E-02
ENSG00000128340	RAC2	0.022	8.13E-02
ENSG00000164366	CCDC127	-0.043	8.13E-02
ENSG00000279394	AC015871.4	0.060	8.13E-02
ENSG00000241549	GUSBP2	-0.038	8.13E-02
ENSG00000118007	STAG1	0.016	8.17E-02
ENSG00000184445	KNTC1	-0.022	8.17E-02
ENSG00000186230	ZNF749	-0.039	8.17E-02
ENSG00000171863	RPS7	-0.084	8.17E-02
ENSG00000196890	H2BU1	-0.071	8.17E-02
ENSG00000057294	PKP2	0.075	8.17E-02
ENSG00000100592	DAAM1	-0.041	8.18E-02
ENSG00000165121	AL353743.1	-0.028	8.18E-02
ENSG00000197766	CFD	0.085	8.18E-02
ENSG00000115421	PAPOLG	0.023	8.19E-02
ENSG00000135842	NIBAN1	0.046	8.19E-02
ENSG00000115977	AAK1	-0.033	8.19E-02
ENSG00000255200	PGAM1P8	0.062	8.19E-02
ENSG00000225579	EDNRB-AS1	-0.084	8.19E-02
ENSG00000083123	BCKDHB	-0.033	8.20E-02
ENSG00000163322	ABRAXAS1	-0.034	8.20E-02
ENSG00000105053	VRK3	0.018	8.20E-02
ENSG00000246225	AC006299.1	-0.067	8.20E-02
ENSG00000140262	TCF12	-0.023	8.21E-02
ENSG00000172273	HINFP	-0.025	8.21E-02
ENSG00000162073	PAQR4	0.046	8.22E-02
ENSG00000041802	LSG1	-0.025	8.23E-02
ENSG00000166140	ZFYVE19	-0.030	8.23E-02
ENSG00000144468	RHBDD1	-0.043	8.24E-02
ENSG00000254528	AP000757.1	0.093	8.25E-02
ENSG00000273340	MICE	-0.072	8.26E-02

ENSG00000101811	CSTF2	-0.030	8.27E-02
ENSG00000172053	QARS1	-0.023	8.27E-02
ENSG00000085832	EPS15	0.016	8.27E-02
ENSG00000228223	HCG11	0.032	8.27E-02
ENSG00000112146	FBXO9	-0.042	8.28E-02
ENSG00000117394	SLC2A1	-0.046	8.29E-02
ENSG00000100209	HSCB	-0.043	8.29E-02
ENSG00000071073	MGAT4A	-0.023	8.29E-02
ENSG00000118997	DNAH7	0.101	8.30E-02
ENSG00000227097	RPS28P7	-0.041	8.31E-02
ENSG00000198015	MRPL42	-0.031	8.31E-02
ENSG00000136144	RCBTB1	0.022	8.31E-02
ENSG00000091181	IL5RA	0.069	8.32E-02
ENSG00000136636	KCTD3	0.038	8.32E-02
ENSG00000243544	RN7SL172P	0.038	8.32E-02
ENSG00000004059	ARF5	0.024	8.33E-02
ENSG00000256950	AC069503.2	0.102	8.33E-02
ENSG00000234073	AC011816.1	0.046	8.33E-02
ENSG00000183647	ZNF530	-0.038	8.33E-02
ENSG00000232587	EEF1A1P3	0.037	8.34E-02
ENSG00000115568	ZNF142	-0.042	8.34E-02
ENSG00000132832	AL139352.1	-0.135	8.35E-02
ENSG00000137168	PPIL1	-0.029	8.35E-02
ENSG00000068308	OTUD5	0.022	8.35E-02
ENSG00000158427	TMSB15B	-0.054	8.35E-02
ENSG00000278768	BACE1-AS	-0.047	8.35E-02
ENSG00000092208	GEMIN2	-0.046	8.36E-02
ENSG00000270194	AC097359.2	-0.063	8.37E-02
ENSG00000249673	NOP14-AS1	-0.025	8.38E-02
ENSG00000132661	NXT1	-0.032	8.41E-02
ENSG00000030066	NUP160	-0.021	8.42E-02
ENSG00000185800	DMWD	-0.041	8.42E-02
ENSG00000132478	UNK	-0.032	8.42E-02
ENSG00000260086	AC007611.1	0.085	8.42E-02
ENSG00000146386	ABRACL	-0.029	8.42E-02
ENSG00000229151	AC233976.1	-0.059	8.43E-02
ENSG00000145779	TNFAIP8	-0.022	8.43E-02
ENSG00000004766	VPS50	-0.027	8.44E-02
ENSG00000137720	C11orf1	-0.057	8.45E-02
ENSG00000273559	CWC25	0.019	8.47E-02
ENSG00000007341	ST7L	-0.026	8.47E-02
ENSG00000012171	SEMA3B	0.093	8.47E-02
ENSG00000113812	ACTR8	-0.020	8.47E-02
ENSG00000146350	TBC1D32	-0.035	8.47E-02
ENSG00000077157	PPP1R12B	0.040	8.47E-02
ENSG00000152556	PFKM	-0.034	8.47E-02
ENSG00000128000	ZNF780B	-0.028	8.47E-02

ENSG0000015568	RGPD5	-0.041	8.48E-02
ENSG00000270638	AL023806.1	-0.068	8.48E-02
ENSG00000125877	ITPA	-0.025	8.49E-02
ENSG00000101901	ALG13	-0.026	8.49E-02
ENSG00000231663	COA6-AS1	-0.072	8.49E-02
ENSG00000197046	SIGLEC15	0.078	8.49E-02
ENSG00000172543	CTSW	-0.049	8.50E-02
ENSG00000177383	MAGEF1	-0.033	8.50E-02
ENSG00000173214	MFSD4B	-0.026	8.51E-02
ENSG00000267481	AC011477.1	-0.028	8.52E-02
ENSG00000131828	PDHA1	-0.022	8.54E-02
ENSG00000143324	XPR1	0.022	8.55E-02
ENSG00000126522	ASL	0.031	8.55E-02
ENSG00000136628	EPRS1	-0.024	8.55E-02
ENSG00000147604	RPL7	-0.078	8.56E-02
ENSG00000233602	ERI3-IT1	-0.068	8.57E-02
ENSG00000072501	SMC1A	-0.024	8.57E-02
ENSG00000061273	HDAC7	0.031	8.57E-02
ENSG00000156711	MAPK13	0.038	8.57E-02
ENSG00000215284	CHMP5P1	-0.091	8.58E-02
ENSG00000273611	ZNHIT3	-0.032	8.58E-02
ENSG00000119383	PTPA	-0.025	8.58E-02
ENSG00000117362	APH1A	0.018	8.58E-02
ENSG00000185085	INTS5	-0.023	8.58E-02
ENSG00000087095	NLK	0.019	8.59E-02
ENSG00000184731	FAM110C	-0.086	8.59E-02
ENSG00000215908	CROCCP2	-0.032	8.59E-02
ENSG00000145431	PDGFC	0.051	8.59E-02
ENSG0000018869	ZNF582	-0.040	8.59E-02
ENSG00000274114	ALOX15P1	-0.054	8.60E-02
ENSG00000260912	AL158206.1	-0.044	8.60E-02
ENSG00000259943	AL050341.2	-0.041	8.60E-02
ENSG00000166165	CKB	-0.072	8.60E-02
ENSG00000198019	FCGR1B	0.064	8.60E-02
ENSG0000013573	DDX11	-0.064	8.61E-02
ENSG00000134222	PSRC1	0.041	8.61E-02
ENSG00000272888	CHASERR	0.019	8.61E-02
ENSG00000157224	CLDN12	-0.060	8.62E-02
ENSG00000067191	CACNB1	-0.056	8.62E-02
ENSG00000124193	SRSF6	-0.015	8.62E-02
ENSG00000151881	TMEM267	-0.037	8.63E-02
ENSG00000197275	RAD54B	-0.077	8.63E-02
ENSG00000143434	SEMA6C	-0.100	8.63E-02
ENSG00000137965	IFI44	0.090	8.64E-02
ENSG00000234076	TPRG1-AS1	0.089	8.65E-02
ENSG00000272754	AL133245.1	0.040	8.65E-02
ENSG00000170471	RALGAPB	0.015	8.66E-02

ENSG00000237940	LINC01238	-0.080	8.67E-02
ENSG00000215146	BX322639.1	-0.137	8.67E-02
ENSG00000255274	SMIM35	-0.070	8.68E-02
ENSG00000261408	TEN1-CDK3	0.090	8.68E-02
ENSG00000213967	ZNF726	-0.051	8.68E-02
ENSG00000120334	CENPL	-0.037	8.68E-02
ENSG00000182185	RAD51B	-0.033	8.68E-02
ENSG00000055163	CYFIP2	-0.023	8.68E-02
ENSG00000124574	ABCC10	-0.032	8.68E-02
ENSG00000081665	ZNF506	-0.019	8.69E-02
ENSG00000211779	TRAV5	-0.065	8.69E-02
ENSG00000228079	AC012368.2	0.064	8.69E-02
ENSG00000196189	SEMA4A	0.041	8.69E-02
ENSG00000174177	CTU2	-0.042	8.69E-02
ENSG00000270640	AC104695.3	0.049	8.69E-02
ENSG00000204977	TRIM13	-0.022	8.69E-02
ENSG00000159403	C1R	0.080	8.69E-02
ENSG00000123810	B9D2	0.036	8.69E-02
ENSG00000255398	HCAR3	0.048	8.70E-02
ENSG00000127418	FGFRL1	-0.054	8.71E-02
ENSG00000245750	DRAIC	0.063	8.71E-02
ENSG00000253537	PCDHGA7	-0.084	8.71E-02
ENSG00000234534	CSNK1G2P1	0.047	8.71E-02
ENSG00000138795	LEF1	-0.041	8.71E-02
ENSG00000236254	MTND4P14	0.058	8.71E-02
ENSG00000118985	ELL2	0.039	8.71E-02
ENSG00000106415	GLCCI1	-0.028	8.71E-02
ENSG00000123570	RAB9B	-0.061	8.72E-02
ENSG00000256029	AL590560.2	0.086	8.72E-02
ENSG00000148358	GPR107	0.030	8.72E-02
ENSG00000279518	AC083843.3	-0.070	8.73E-02
ENSG00000161179	YDJC	-0.029	8.73E-02
ENSG00000227403	LINC01806	-0.050	8.73E-02
ENSG00000176978	DPP7	-0.034	8.73E-02
ENSG00000099219	ERMP1	-0.023	8.73E-02
ENSG00000273472	AC096733.2	-0.065	8.74E-02
ENSG00000230869	AGAP10P	0.127	8.74E-02
ENSG00000164342	TLR3	-0.067	8.74E-02
ENSG00000086758	HUWE1	-0.028	8.74E-02
ENSG00000127314	RAP1B	0.019	8.74E-02
ENSG00000277959	AL162274.2	0.067	8.74E-02
ENSG00000140006	WDR89	-0.045	8.74E-02
ENSG00000139517	LNX2	-0.023	8.76E-02
ENSG00000263126	AC040162.3	-0.070	8.76E-02
ENSG00000251379	AC099550.1	0.067	8.77E-02
ENSG00000102225	CDK16	0.024	8.77E-02
ENSG00000100320	RBFOX2	-0.088	8.78E-02

ENSG00000274419	TBC1D3D	-0.206	8.78E-02
ENSG00000155749	FLACC1	-0.067	8.78E-02
ENSG00000116918	TSNAX	0.026	8.78E-02
ENSG00000203811	H3C14	0.067	8.79E-02
ENSG00000001036	FUCA2	0.026	8.80E-02
ENSG00000173226	IQCB1	-0.026	8.80E-02
ENSG00000273824	AC008033.3	-0.091	8.80E-02
ENSG00000198453	ZNF568	-0.034	8.81E-02
ENSG00000011275	RNF216	-0.018	8.81E-02
ENSG00000275895	U2AF1L5	0.120	8.81E-02
ENSG00000272529	AC090948.3	-0.049	8.81E-02
ENSG00000237135	DDX10P1	0.048	8.81E-02
ENSG00000119636	BBOF1	-0.073	8.82E-02
ENSG00000106028	SSBP1	-0.021	8.84E-02
ENSG00000066468	FGFR2	0.103	8.84E-02
ENSG00000259363	AC090825.1	-0.037	8.84E-02
ENSG00000227189	AC092535.2	-0.094	8.84E-02
ENSG00000066926	FECH	-0.078	8.84E-02
ENSG00000146416	AIG1	0.032	8.85E-02
ENSG00000205559	CHKB-DT	-0.040	8.85E-02
ENSG00000272650	AC110792.3	0.054	8.85E-02
ENSG00000259562	AC090607.2	-0.049	8.85E-02
ENSG00000171792	RHNO1	-0.030	8.85E-02
ENSG00000172590	MRPL52	-0.032	8.86E-02
ENSG00000135624	CCT7	-0.018	8.86E-02
ENSG00000182405	PGBD4	-0.033	8.86E-02
ENSG00000174721	FGFBP3	-0.043	8.86E-02
ENSG00000171916	LGALS9C	0.107	8.86E-02
ENSG00000157500	APPL1	-0.021	8.86E-02
ENSG00000156599	ZDHHC5	0.019	8.86E-02
ENSG00000196862	RGPD4	-0.130	8.87E-02
ENSG00000237356	AL365295.1	-0.047	8.88E-02
ENSG00000094975	SUCO	-0.026	8.89E-02
ENSG00000164609	SLU7	0.022	8.89E-02
ENSG00000053371	AKR7A2	-0.024	8.89E-02
ENSG00000140548	ZNF710	0.032	8.90E-02
ENSG00000183208	GDPGP1	-0.050	8.90E-02
ENSG00000280063	AC012676.5	-0.047	8.91E-02
ENSG00000145555	MYO10	0.099	8.92E-02
ENSG00000164070	HSPA4L	0.131	8.93E-02
ENSG00000169507	SLC38A11	-0.117	8.93E-02
ENSG00000136527	TRA2B	-0.016	8.93E-02
ENSG00000120733	KDM3B	0.024	8.93E-02
ENSG00000232022	FAAHP1	-0.087	8.93E-02
ENSG00000124491	F13A1	0.058	8.95E-02
ENSG00000165424	ZCCHC24	0.045	8.95E-02
ENSG00000198740	ZNF652	0.036	8.95E-02

ENSG00000130592	LSP1	0.033	8.96E-02
ENSG00000230131	LINC02641	-0.091	8.96E-02
ENSG00000156453	PCDH1	-0.076	8.96E-02
ENSG00000183576	SETD3	-0.031	8.97E-02
ENSG00000235859	AC006978.1	0.018	8.97E-02
ENSG00000164934	DCAF13	-0.030	8.97E-02
ENSG00000126777	KTN1	-0.022	8.97E-02
ENSG00000130520	LSM4	-0.024	8.97E-02
ENSG00000255769	GOLGA2P10	-0.075	8.97E-02
ENSG00000108960	MMD	0.049	8.97E-02
ENSG00000107625	DDX50	-0.028	8.97E-02
ENSG00000226025	LGALS17A	-0.101	8.97E-02
ENSG00000275426	AC253576.2	-0.089	8.98E-02
ENSG00000135473	PAN2	-0.031	8.98E-02
ENSG00000131467	PSME3	0.029	9.00E-02
ENSG00000105849	POLR1F	-0.035	9.01E-02
ENSG00000077152	UBE2T	-0.063	9.01E-02
ENSG00000129696	TTI2	0.018	9.01E-02
ENSG00000157184	CPT2	0.016	9.01E-02
ENSG00000231105	ECE1-AS1	-0.055	9.01E-02
ENSG00000181284	TMEM102	-0.027	9.01E-02
ENSG00000251450	RASGRF2-AS1	-0.107	9.02E-02
ENSG00000224281	SLC25A5-AS1	-0.054	9.02E-02
ENSG00000279320	AC069528.2	0.056	9.02E-02
ENSG00000070540	WIPI1	0.035	9.02E-02
ENSG00000107890	ANKRD26	-0.031	9.04E-02
ENSG00000215244	LINC02649	0.060	9.04E-02
ENSG00000112079	STK38	0.013	9.04E-02
ENSG00000116871	MAP7D1	0.027	9.06E-02
ENSG00000279344	AC007342.6	0.056	9.06E-02
ENSG00000138867	GUCD1	-0.056	9.07E-02
ENSG00000227354	RBM26-AS1	-0.047	9.07E-02
ENSG00000089169	RPH3A	0.126	9.07E-02
ENSG00000070761	CFAP20	-0.023	9.07E-02
ENSG00000139508	SLC46A3	0.017	9.08E-02
ENSG00000174749	FAM241A	0.025	9.08E-02
ENSG00000166428	PLD4	-0.051	9.08E-02
ENSG00000175322	ZNF519	-0.039	9.10E-02
ENSG00000279805	Z95114.3	-0.031	9.10E-02
ENSG00000124596	OARD1	-0.022	9.11E-02
ENSG00000102858	MGRN1	0.042	9.11E-02
ENSG00000142188	TMEM50B	-0.028	9.11E-02
ENSG00000171606	ZNF274	0.019	9.11E-02
ENSG00000106261	ZKSCAN1	-0.031	9.11E-02
ENSG00000169627	BOLA2B	-0.044	9.14E-02
ENSG00000183666	GUSBP1	-0.044	9.15E-02
ENSG00000263766	AC025682.1	0.052	9.15E-02

ENSG00000168924	LETM1	-0.025	9.15E-02
ENSG00000005302	MSL3	0.021	9.15E-02
ENSG00000083642	PDS5B	0.020	9.16E-02
ENSG00000129534	MIS18BP1	0.021	9.16E-02
ENSG00000257027	AC010186.3	-0.025	9.16E-02
ENSG00000124222	STX16	0.019	9.16E-02
ENSG00000171208	NETO2	0.047	9.16E-02
ENSG00000102531	FNDC3A	0.015	9.16E-02
ENSG00000182853	VMO1	0.102	9.17E-02
ENSG00000151474	FRMD4A	-0.078	9.17E-02
ENSG00000101000	PROCR	-0.067	9.17E-02
ENSG00000130193	THEM6	-0.035	9.18E-02
ENSG00000287917	AP000944.7	0.063	9.18E-02
ENSG00000123178	SPRYD7	-0.046	9.18E-02
ENSG00000169918	OTUD7A	-0.043	9.18E-02
ENSG00000104835	SARS2	-0.046	9.19E-02
ENSG00000164305	CASP3	0.032	9.19E-02
ENSG00000224376	AC017104.1	-0.078	9.19E-02
ENSG00000128626	MRPS12	-0.029	9.19E-02
ENSG00000107140	TESK1	-0.036	9.19E-02
ENSG00000128908	INO80	-0.031	9.20E-02
ENSG00000101417	PXMP4	-0.036	9.20E-02
ENSG00000179119	SPTY2D1	0.019	9.20E-02
ENSG00000138768	USO1	0.019	9.20E-02
ENSG00000214975	PPIAP29	0.091	9.21E-02
ENSG00000159618	ADGRG5	-0.047	9.21E-02
ENSG00000228278	ORM2	0.125	9.21E-02
ENSG00000109084	TMEM97	-0.054	9.22E-02
ENSG00000088205	DDX18	-0.019	9.24E-02
ENSG00000272282	LINC02084	-0.060	9.24E-02
ENSG00000278540	ACACA	-0.038	9.24E-02
ENSG00000245025	AC107959.1	-0.035	9.24E-02
ENSG00000196550	FAM72A	0.061	9.24E-02
ENSG00000163738	MTHFD2L	-0.025	9.25E-02
ENSG00000256525	POLG2	-0.026	9.27E-02
ENSG00000276116	FUT8-AS1	-0.055	9.27E-02
ENSG00000196218	RYR1	-0.115	9.27E-02
ENSG00000197702	PARVA	-0.112	9.28E-02
ENSG00000178726	THBD	0.055	9.28E-02
ENSG00000248508	SRP14-AS1	-0.040	9.29E-02
ENSG00000164484	TMEM200A	-0.059	9.29E-02
ENSG00000142252	GEMIN7	0.028	9.29E-02
ENSG00000123933	MXD4	-0.026	9.31E-02
ENSG00000182224	CYB5D1	-0.041	9.31E-02
ENSG00000072609	CHFR	0.018	9.32E-02
ENSG00000115507	OTX1	0.088	9.32E-02
ENSG00000137992	DBT	-0.022	9.33E-02

ENSG00000169926	KLF13	0.019	9.34E-02
ENSG00000005448	WDR54	-0.035	9.34E-02
ENSG00000138050	THUMPD2	-0.040	9.35E-02
ENSG00000163349	HIPK1	0.028	9.35E-02
ENSG00000249601	LINC01187	-0.103	9.36E-02
ENSG00000230069	LRRC37A15P	0.069	9.36E-02
ENSG00000187325	TAF9B	-0.037	9.36E-02
ENSG00000134371	CDC73	0.013	9.36E-02
ENSG00000230457	PA2G4P4	-0.035	9.38E-02
ENSG00000120029	ARMH3	-0.021	9.39E-02
ENSG00000227124	ZNF717	-0.030	9.39E-02
ENSG00000103018	CYB5B	-0.018	9.39E-02
ENSG00000124641	MED20	0.020	9.39E-02
ENSG00000070882	OSBPL3	-0.032	9.39E-02
ENSG00000118680	MYL12B	0.025	9.40E-02
ENSG00000261879	AC087500.1	-0.052	9.41E-02
ENSG00000165169	DYNLT3	-0.039	9.41E-02
ENSG00000087470	DNM1L	-0.021	9.41E-02
ENSG00000213190	MLLT11	-0.039	9.42E-02
ENSG00000132716	DCAF8	-0.011	9.42E-02
ENSG00000181827	RFX7	-0.022	9.42E-02
ENSG00000249437	NAIP	0.052	9.42E-02
ENSG00000211727	TRBV7-6	-0.070	9.42E-02
ENSG00000276071	AC074138.1	-0.048	9.42E-02
ENSG00000083093	PALB2	-0.028	9.43E-02
ENSG00000198933	TBKBP1	0.047	9.44E-02
ENSG00000227036	LINC00511	-0.104	9.44E-02
ENSG00000138621	PPCDC	0.030	9.44E-02
ENSG00000176273	SLC35G1	-0.042	9.44E-02
ENSG00000161204	ABCF3	-0.020	9.44E-02
ENSG00000181924	COA4	-0.025	9.44E-02
ENSG00000269343	ZNF587B	-0.018	9.44E-02
ENSG00000275799	AP001059.1	-0.084	9.47E-02
ENSG00000179044	EXOC3L1	0.102	9.47E-02
ENSG00000110395	CBL	0.045	9.47E-02
ENSG00000226419	SLC16A1-AS1	-0.038	9.48E-02
ENSG00000269858	EGLN2	0.025	9.48E-02
ENSG00000183785	TUBA8	0.083	9.48E-02
ENSG00000178852	EFCAB13	-0.052	9.49E-02
ENSG00000204628	RACK1	-0.024	9.49E-02
ENSG00000251661	AC136475.1	0.049	9.49E-02
ENSG00000211710	TRBV4-1	-0.084	9.49E-02
ENSG00000096092	TMEM14A	-0.045	9.49E-02
ENSG00000243943	ZNF512	-0.021	9.50E-02
ENSG00000215126	CBWD6	0.038	9.50E-02
ENSG00000232542	DPYD-IT1	0.048	9.50E-02
ENSG00000206077	ZDHHC11B	-0.086	9.51E-02

ENSG00000197747	S100A10	0.027	9.51E-02
ENSG00000259001	AL355075.4	0.058	9.51E-02
ENSG00000113966	ARL6	-0.044	9.52E-02
ENSG00000166263	STXBP4	-0.046	9.53E-02
ENSG00000107018	RLN1	-0.065	9.55E-02
ENSG00000122376	SHLD2	-0.030	9.56E-02
ENSG00000150636	CCDC102B	-0.046	9.56E-02
ENSG00000279663	AC104623.2	0.069	9.56E-02
ENSG00000273253	AL022328.4	0.065	9.57E-02
ENSG00000261067	AC109460.3	-0.099	9.57E-02
ENSG00000197142	ACSL5	-0.021	9.59E-02
ENSG00000137074	APTX	-0.019	9.59E-02
ENSG00000175581	MRPL48	-0.042	9.59E-02
ENSG00000102974	CTCF	-0.016	9.59E-02
ENSG00000119878	CRIP1	0.022	9.60E-02
ENSG00000133065	SLC41A1	-0.048	9.60E-02
ENSG00000266896	AL354892.3	-0.060	9.61E-02
ENSG00000179082	C9orf106	0.046	9.61E-02
ENSG00000106052	TAX1BP1	0.023	9.61E-02
ENSG00000273445	AC133644.1	-0.074	9.61E-02
ENSG00000234737	KRT18P15	-0.082	9.61E-02
ENSG00000109099	PMP22	0.082	9.62E-02
ENSG00000160226	CFAP410	-0.037	9.62E-02
ENSG00000136631	VPS45	-0.020	9.62E-02
ENSG00000274266	SNORA73A	0.065	9.63E-02
ENSG00000261079	AC009053.2	-0.076	9.63E-02
ENSG00000273226	AL391834.2	-0.065	9.64E-02
ENSG00000212232	SNORD17	0.077	9.64E-02
ENSG00000121671	CRY2	-0.022	9.64E-02
ENSG00000169100	SLC25A6	-0.023	9.65E-02
ENSG00000185379	RAD51D	-0.036	9.65E-02
ENSG00000015479	MATR3	-0.020	9.65E-02
ENSG00000288253	AC010332.3	-0.093	9.67E-02
ENSG00000218713	AL512378.1	0.090	9.67E-02
ENSG00000135587	SMPD2	-0.026	9.68E-02
ENSG00000168890	TMEM150A	-0.044	9.68E-02
ENSG00000146707	POMZP3	-0.050	9.68E-02
ENSG00000160124	CCDC58	-0.051	9.68E-02
ENSG00000280332	AC020917.4	0.051	9.68E-02
ENSG00000249661	TNRC18P1	-0.059	9.68E-02
ENSG00000234436	AC245884.2	0.088	9.68E-02
ENSG00000026297	RNASSET2	0.035	9.68E-02
ENSG00000167977	KCTD5	0.017	9.68E-02
ENSG00000146433	TMEM181	-0.020	9.68E-02
ENSG00000111144	LTA4H	0.030	9.69E-02
ENSG00000160325	CACFD1	-0.054	9.69E-02
ENSG00000232487	RASA3-IT1	-0.063	9.70E-02

ENSG00000185482	STAC3	0.041	9.70E-02
ENSG00000149557	FEZ1	-0.068	9.71E-02
ENSG00000196914	ARHGEF12	-0.059	9.72E-02
ENSG00000135945	REV1	-0.021	9.72E-02
ENSG00000124613	ZNF391	-0.094	9.72E-02
ENSG00000115484	CCT4	-0.023	9.72E-02
ENSG00000281530	AC004461.2	0.037	9.74E-02
ENSG00000160336	ZNF761	-0.033	9.74E-02
ENSG00000239900	ADSL	-0.021	9.75E-02
ENSG00000204837	FGF7P3	-0.139	9.75E-02
ENSG00000267296	CEBPA-DT	0.052	9.75E-02
ENSG00000148337	CIZ1	-0.037	9.75E-02
ENSG00000165511	ZNF22-AS1	-0.074	9.77E-02
ENSG00000196867	ZFP28	-0.044	9.77E-02
ENSG00000134697	GNL2	-0.022	9.77E-02
ENSG00000100523	DDHD1	-0.024	9.77E-02
ENSG00000055609	KMT2C	0.026	9.78E-02
ENSG00000198886	MT-ND4	0.044	9.78E-02
ENSG00000104881	PPP1R13L	0.093	9.78E-02
ENSG00000286190	AC055839.2	0.033	9.78E-02
ENSG00000147117	ZNF157	-0.069	9.78E-02
ENSG00000104783	KCNN4	-0.039	9.79E-02
ENSG00000157538	VPS26C	0.012	9.79E-02
ENSG00000135040	NAA35	-0.026	9.79E-02
ENSG00000168264	IRF2BP2	0.015	9.81E-02
ENSG00000261351	AC116913.1	-0.028	9.81E-02
ENSG00000170017	ALCAM	0.030	9.81E-02
ENSG00000106772	PRUNE2	0.117	9.82E-02
ENSG00000155876	RRAGA	0.017	9.82E-02
ENSG00000167680	SEMA6B	-0.103	9.84E-02
ENSG00000276248	AL442125.1	0.040	9.84E-02
ENSG00000258732	AC025884.1	-0.070	9.84E-02
ENSG00000260267	AC026471.1	-0.024	9.84E-02
ENSG00000272397	AL138916.2	0.073	9.85E-02
ENSG00000246100	LINC00900	-0.114	9.85E-02
ENSG00000246090	AP002026.1	-0.054	9.85E-02
ENSG00000124942	AHNAK	-0.022	9.85E-02
ENSG00000055917	PUM2	0.014	9.86E-02
ENSG00000219481	NBPF1	-0.038	9.86E-02
ENSG00000162241	SLC25A45	-0.042	9.87E-02
ENSG00000139116	KIF21A	-0.051	9.87E-02
ENSG00000189343	RPS2P46	-0.067	9.87E-02
ENSG00000182150	ERCC6L2	-0.018	9.89E-02
ENSG00000143772	ITPKB	-0.019	9.89E-02
ENSG00000235618	FAM21EP	-0.084	9.91E-02
ENSG00000258790	AL121594.1	0.097	9.91E-02
ENSG00000198246	SLC29A3	-0.035	9.91E-02

ENSG00000154240	CEP112	-0.081	9.91E-02
ENSG00000124743	KLHL31	-0.080	9.91E-02
ENSG00000232810	TNF	-0.034	9.91E-02
ENSG00000253307	AC011676.1	0.073	9.93E-02
ENSG00000143322	ABL2	-0.023	9.93E-02
ENSG00000171817	ZNF540	-0.042	9.94E-02
ENSG00000114857	NKTR	-0.018	9.97E-02
ENSG00000147065	MSN	0.031	9.97E-02
ENSG00000105699	LSR	-0.060	9.97E-02
ENSG00000177189	RPS6KA3	0.014	9.97E-02
ENSG00000280119	AC093642.2	-0.066	9.98E-02
ENSG00000273160	AL359962.2	-0.073	9.98E-02
ENSG00000160007	ARHGAP35	-0.021	9.98E-02
ENSG00000127957	PMS2P3	-0.031	9.99E-02
ENSG00000109944	JHY	-0.046	1.00E-01
ENSG00000237840	FAM21FP	-0.068	1.00E-01
ENSG00000250251	PKD1P6	-0.059	1.00E-01

Table E16. Differentially Expressed Genes (DEGs) associated with the IEAairway (adjusted p-value < .10). We performed differential gene expression using the limma R package (v3.38.3). We adjusted for the following covariates: age, race, gender, pack-years of smoking, current smoking status, forced expiratory volume in one second (FEV1), CBC cell count proportions, library prep batch, and CT scanner model. Multiple comparisons were corrected with the Benjamini-Hochberg method.

Ensembl Gene ID	HUGO Gene Name	beta	Adjusted p-values
ENSG00000169877	AHSP	0.374	2.424E-19
ENSG00000224177	LINC00570	0.283	1.273E-15
ENSG00000172331	BPGM	0.283	1.273E-15
ENSG00000182512	GLRX5	0.256	7.499E-15
ENSG00000112335	SNX3	0.161	1.665E-14
ENSG00000145354	CISD2	0.199	2.198E-14
ENSG00000204010	IFIT1B	0.298	2.198E-14
ENSG00000047597	XK	0.281	3.071E-14
ENSG00000186063	AIDA	0.101	3.071E-14
ENSG00000153814	JAZF1	0.162	2.164E-13
ENSG00000133742	CA1	0.330	2.469E-13
ENSG00000158578	ALAS2	0.322	3.230E-13
ENSG00000100387	RBX1	0.120	5.883E-13
ENSG00000118777	ABCG2	0.272	8.394E-13
ENSG00000153574	RPIA	0.185	8.643E-13
ENSG00000070182	SPTB	0.289	8.643E-13
ENSG00000055732	MCOLN3	0.243	9.007E-13
ENSG00000123091	RNF11	0.182	1.382E-12
ENSG00000114166	KAT2B	0.103	1.382E-12
ENSG00000180667	YOD1	0.202	1.382E-12
ENSG00000155962	CLIC2	0.176	1.582E-12
ENSG00000152484	USP12	0.157	2.822E-12
ENSG00000162722	TRIM58	0.265	4.632E-12
ENSG00000198805	PNP	0.102	4.632E-12
ENSG00000173598	NUDT4	0.164	1.042E-11
ENSG00000131981	LGALS3	0.169	1.196E-11
ENSG00000119326	CTNNA1	0.229	1.202E-11
ENSG00000188175	HEPACAM2	0.260	1.203E-11
ENSG00000184182	UBE2F	0.091	2.379E-11
ENSG00000181788	SIAH2	0.205	2.948E-11
ENSG00000143416	SELENBP1	0.252	2.948E-11
ENSG00000136938	ANP32B	0.116	3.907E-11
ENSG00000034713	GABARAPL2	0.139	4.230E-11
ENSG00000111666	CHPT1	0.149	4.293E-11
ENSG00000135045	C9orf40	0.122	5.004E-11
ENSG00000066926	FECH	0.226	5.493E-11
ENSG00000119950	MXI1	0.202	5.873E-11
ENSG00000160179	ABCG1	-0.155	5.901E-11

ENSG00000135776	ABCB10	0.097	7.296E-11
ENSG00000158050	DUSP2	-0.179	7.296E-11
ENSG00000112077	RHAG	0.220	7.726E-11
ENSG00000124107	SLPI	0.216	8.502E-11
ENSG00000100614	PPM1A	0.147	1.026E-10
ENSG00000198176	TFDP1	0.137	1.148E-10
ENSG00000164674	SYTL3	-0.083	1.163E-10
ENSG00000004939	SLC4A1	0.251	1.239E-10
ENSG00000183508	TENT5C	0.244	1.349E-10
ENSG00000143546	S100A8	0.204	2.000E-10
ENSG00000118113	MMP8	0.322	2.056E-10
ENSG00000092841	MYL6	0.116	2.641E-10
ENSG00000104219	ZDHHC2	0.105	2.732E-10
ENSG00000111886	GABRR2	0.185	2.882E-10
ENSG00000163554	SPTA1	0.205	4.211E-10
ENSG00000137198	GMPR	0.225	4.230E-10
ENSG00000101782	RIOK3	0.161	4.320E-10
ENSG00000148175	STOM	0.123	4.872E-10
ENSG00000111726	CMAS	0.103	4.932E-10
ENSG00000238243	OR2W3	0.255	5.785E-10
ENSG00000168785	TSPAN5	0.192	6.539E-10
ENSG00000250361	GYPB	0.213	6.970E-10
ENSG00000243064	ABCC13	0.244	7.109E-10
ENSG00000186184	POLR1D	0.103	7.598E-10
ENSG00000163221	S100A12	0.180	7.598E-10
ENSG00000243317	STMP1	0.112	7.598E-10
ENSG00000086232	EIF2AK1	0.156	8.226E-10
ENSG00000165434	PGM2L1	0.092	8.400E-10
ENSG00000104522	GFUS	0.155	9.358E-10
ENSG00000133606	MKRN1	0.177	9.469E-10
ENSG00000043093	DCUN1D1	0.114	9.469E-10
ENSG00000136875	PRPF4	-0.049	9.469E-10
ENSG00000151136	BTBD11	-0.099	1.005E-09
ENSG00000255833	TIFAB	-0.163	1.211E-09
ENSG00000141469	SLC14A1	0.191	1.224E-09
ENSG00000143164	DCAF6	0.083	1.305E-09
ENSG00000013561	RNF14	0.125	1.305E-09
ENSG00000269887	AL391001.1	0.277	1.305E-09
ENSG00000198336	MYL4	0.207	1.592E-09
ENSG00000253250	C8orf88	0.160	1.813E-09
ENSG00000139323	POC1B	0.087	1.885E-09
ENSG00000149212	SESN3	0.133	2.161E-09
ENSG00000198771	RCSD1	-0.045	2.185E-09
ENSG00000253981	ALG1L13P	-0.145	2.278E-09
ENSG00000277481	PKD1L3	0.254	2.442E-09
ENSG00000141034	GID4	0.111	2.600E-09
ENSG00000138772	ANXA3	0.170	2.649E-09

ENSG00000139842	CUL4A	0.070	2.728E-09
ENSG00000110958	PTGES3	0.064	2.948E-09
ENSG00000166947	EPB42	0.222	3.199E-09
ENSG00000175582	RAB6A	0.066	3.216E-09
ENSG00000021645	NRXN3	0.265	3.298E-09
ENSG00000170515	PA2G4	0.073	3.566E-09
ENSG00000106771	TMEM245	0.057	3.672E-09
ENSG00000242616	GNG10	0.129	4.410E-09
ENSG00000012223	LTF	0.276	4.410E-09
ENSG00000146007	ZMAT2	0.102	4.480E-09
ENSG00000079308	TNS1	0.219	4.982E-09
ENSG00000157045	NTAN1	0.095	5.052E-09
ENSG00000147689	FAM83A	0.391	5.701E-09
ENSG00000101161	PRPF6	-0.048	5.710E-09
ENSG00000187554	TLR5	0.131	6.462E-09
ENSG00000157445	CACNA2D3	-0.149	6.648E-09
ENSG00000132670	PTPRA	0.107	6.693E-09
ENSG00000198876	DCAF12	0.193	6.693E-09
ENSG00000175931	UBE2O	0.181	6.693E-09
ENSG00000143162	CREG1	0.117	7.274E-09
ENSG00000124172	ATP5F1E	0.104	8.313E-09
ENSG00000268119	AC010615.2	0.264	8.313E-09
ENSG00000120306	CYSTM1	0.126	8.352E-09
ENSG00000238269	PAGE2B	0.231	8.352E-09
ENSG00000124098	FAM210B	0.195	8.985E-09
ENSG00000082146	STRADB	0.198	9.093E-09
ENSG00000164068	RNF123	0.128	9.680E-09
ENSG00000223609	HBD	0.317	9.749E-09
ENSG00000057757	PITHD1	0.177	1.191E-08
ENSG00000244115	DNAJC25-GNG10	0.138	1.518E-08
ENSG00000155659	VSIG4	-0.200	1.576E-08
ENSG00000163827	LRRC2	0.268	1.679E-08
ENSG00000101928	MOSPD1	0.109	1.696E-08
ENSG00000197006	METTL9	0.082	1.696E-08
ENSG00000136810	TXN	0.103	2.096E-08
ENSG00000115993	TRAK2	0.133	2.096E-08
ENSG00000135916	ITM2C	-0.106	2.310E-08
ENSG00000139517	LNX2	0.058	2.405E-08
ENSG00000114209	PDCD10	0.080	2.719E-08
ENSG00000186591	UBE2H	0.132	2.756E-08
ENSG00000197256	KANK2	0.220	3.033E-08
ENSG00000179262	RAD23A	0.127	3.136E-08
ENSG00000123240	OPTN	0.106	3.272E-08
ENSG00000143771	CNIH4	0.071	3.422E-08
ENSG00000110330	BIRC2	0.073	3.631E-08
ENSG00000167815	PRDX2	0.137	4.023E-08
ENSG00000100558	PLEK2	0.188	4.029E-08

ENSG00000166946	CCNDBP1	0.084	4.029E-08
ENSG00000137804	NUSAP1	0.197	4.058E-08
ENSG00000001084	GCLC	0.090	4.074E-08
ENSG00000068878	PSME4	0.067	4.108E-08
ENSG00000090432	MUL1	-0.051	4.390E-08
ENSG00000022840	RNF10	0.147	4.716E-08
ENSG00000112212	TSPO2	0.244	4.720E-08
ENSG00000063854	HAGH	0.160	5.106E-08
ENSG00000132964	CDK8	0.072	5.152E-08
ENSG00000006715	VPS41	-0.046	5.345E-08
ENSG00000096006	CRISP3	0.233	5.345E-08
ENSG00000023909	GCLM	0.080	5.348E-08
ENSG00000125257	ABCC4	0.123	5.729E-08
ENSG00000147454	SLC25A37	0.155	5.814E-08
ENSG00000146122	DAAM2	-0.342	6.121E-08
ENSG00000148346	LCN2	0.219	6.203E-08
ENSG00000156515	HK1	0.101	6.731E-08
ENSG00000157168	NRG1	0.205	7.350E-08
ENSG00000257017	HP	0.231	7.361E-08
ENSG00000130830	MPP1	0.154	7.714E-08
ENSG00000205639	MFSD2B	0.182	8.618E-08
ENSG00000163374	YY1AP1	0.106	9.061E-08
ENSG00000229358	DPY19L1P1	0.149	9.061E-08
ENSG00000133193	FAM104A	0.137	9.498E-08
ENSG00000116863	ADPRS	-0.054	9.500E-08
ENSG00000122025	FLT3	-0.144	9.514E-08
ENSG00000113811	SELENOK	0.113	9.666E-08
ENSG00000181704	YIPF6	0.095	1.111E-07
ENSG00000166347	CYB5A	0.080	1.125E-07
ENSG00000213090	SCYL2P1	0.086	1.232E-07
ENSG00000164849	GPR146	0.172	1.271E-07
ENSG00000135218	CD36	0.090	1.316E-07
ENSG00000136819	C9orf78	0.152	1.341E-07
ENSG00000140403	DNAJA4	0.114	1.351E-07
ENSG00000105281	SLC1A5	0.160	1.502E-07
ENSG00000071564	TCF3	0.092	1.564E-07
ENSG00000204323	SMIM5	0.162	1.685E-07
ENSG00000196914	ARHGEF12	0.142	1.685E-07
ENSG00000225885	AC023590.1	-0.229	1.869E-07
ENSG00000060138	YBX3	0.170	1.871E-07
ENSG00000100568	VTI1B	0.097	1.899E-07
ENSG00000143321	HDGF	0.122	1.914E-07
ENSG00000129472	RAB2B	0.147	1.936E-07
ENSG00000107758	PPP3CB	0.044	2.046E-07
ENSG00000277496	AL357033.4	-0.067	2.173E-07
ENSG00000091436	MAP3K20	0.082	2.187E-07
ENSG00000124214	STAU1	0.077	2.253E-07

ENSG00000172215	CXCR6	-0.144	2.427E-07
ENSG00000198833	UBE2J1	0.068	2.611E-07
ENSG00000158481	CD1C	-0.117	2.618E-07
ENSG00000143727	ACP1	0.076	2.678E-07
ENSG00000130227	XPO7	0.083	2.716E-07
ENSG00000114999	TTL	0.053	2.794E-07
ENSG00000159556	ISL2	-0.184	2.887E-07
ENSG00000204613	TRIM10	0.176	3.043E-07
ENSG00000100490	CDKL1	0.132	3.043E-07
ENSG00000136929	HEMGN	0.180	3.169E-07
ENSG00000167283	ATP5MG	0.080	3.176E-07
ENSG00000104765	BNIP3L	0.146	3.176E-07
ENSG00000198019	FCGR1B	0.146	3.176E-07
ENSG00000150867	PIP4K2A	0.123	3.176E-07
ENSG00000144468	RHBDD1	0.097	3.178E-07
ENSG00000103342	GSPT1	0.159	3.229E-07
ENSG00000131016	AKAP12	-0.274	3.484E-07
ENSG00000134779	TPGS2	0.091	3.640E-07
ENSG00000198692	EIF1AY	0.148	3.843E-07
ENSG00000147324	MFHAS1	0.065	3.889E-07
ENSG00000142453	CARM1	0.156	4.139E-07
ENSG00000177352	CCDC71	-0.048	4.256E-07
ENSG00000287642	AC093599.2	0.238	4.256E-07
ENSG00000171552	BCL2L1	0.172	4.268E-07
ENSG00000136842	TMOD1	0.169	4.434E-07
ENSG00000165406	MARCHF8	0.149	4.434E-07
ENSG00000188672	RHCE	0.203	4.563E-07
ENSG00000090013	BLVRB	0.154	4.653E-07
ENSG00000229117	RPL41	0.154	4.708E-07
ENSG00000283646	LINC02009	0.224	4.708E-07
ENSG00000182518	FAM104B	0.097	4.906E-07
ENSG00000167768	KRT1	0.231	4.926E-07
ENSG00000135070	ISCA1	0.113	4.969E-07
ENSG00000105223	PLD3	-0.065	4.983E-07
ENSG00000213088	ACKR1	0.230	5.144E-07
ENSG00000233038	PTPRN2-AS1	-0.133	5.150E-07
ENSG00000075413	MARK3	0.057	5.277E-07
ENSG00000092200	RPGRIP1	-0.129	5.558E-07
ENSG00000143797	MBOAT2	0.133	5.558E-07
ENSG00000170180	GYPA	0.179	5.788E-07
ENSG00000113558	SKP1	0.064	6.492E-07
ENSG00000107242	PIP5K1B	0.095	6.641E-07
ENSG00000006125	AP2B1	0.057	6.719E-07
ENSG00000159346	ADIPOR1	0.156	7.601E-07
ENSG00000140941	MAP1LC3B	0.066	7.960E-07
ENSG00000060237	WNK1	0.106	8.125E-07
ENSG00000110046	ATG2A	-0.101	8.697E-07

ENSG00000176845	METRNL	-0.076	9.161E-07
ENSG00000221823	PPP3R1	0.086	9.184E-07
ENSG00000285557	AC069410.1	0.195	9.270E-07
ENSG00000123080	CDKN2C	0.103	9.270E-07
ENSG00000111790	FGFR1OP2	0.061	9.346E-07
ENSG00000077238	IL4R	0.075	9.408E-07
ENSG00000275527	AC100835.2	0.203	9.661E-07
ENSG00000259956	RBM15B	-0.032	9.722E-07
ENSG00000154114	TBCEL	0.105	9.997E-07
ENSG00000165775	FUNDC2	0.099	1.008E-06
ENSG00000242258	LINC00996	-0.194	1.037E-06
ENSG00000173542	MOB1B	0.062	1.040E-06
ENSG00000163050	COQ8A	-0.061	1.050E-06
ENSG00000179562	GCC1	-0.037	1.073E-06
ENSG00000185905	C16orf54	-0.055	1.079E-06
ENSG00000177144	NUDT4B	0.209	1.102E-06
ENSG00000158195	WASF2	0.094	1.112E-06
ENSG00000230006	ANKRD36BP2	0.173	1.123E-06
ENSG00000162775	RBM15	-0.026	1.123E-06
ENSG00000158473	CD1D	-0.071	1.150E-06
ENSG00000051108	HERPUD1	-0.037	1.150E-06
ENSG00000256269	HMBS	0.124	1.162E-06
ENSG00000007944	MYLIP	-0.058	1.170E-06
ENSG00000265531	FCGR1CP	0.180	1.170E-06
ENSG00000163251	FZD5	0.112	1.170E-06
ENSG00000118816	CCNI	0.091	1.170E-06
ENSG00000167705	RILP	0.140	1.300E-06
ENSG00000099622	CIRBP	-0.038	1.411E-06
ENSG00000287670	AC108479.1	0.177	1.411E-06
ENSG00000103534	TMC5	0.225	1.509E-06
ENSG00000104142	VPS18	-0.051	1.517E-06
ENSG00000119013	NDUFB3	0.119	1.535E-06
ENSG00000127184	COX7C	0.139	1.535E-06
ENSG00000268170	AC073342.1	0.144	1.535E-06
ENSG00000150337	FCGR1A	0.150	1.578E-06
ENSG00000004897	CDC27	0.066	1.578E-06
ENSG00000008952	SEC62	0.070	1.578E-06
ENSG00000135018	UBQLN1	0.041	1.600E-06
ENSG00000052802	MSMO1	0.063	1.639E-06
ENSG00000029534	ANK1	0.169	1.639E-06
ENSG00000134851	TMEM165	0.046	1.688E-06
ENSG00000197721	CR1L	0.157	1.704E-06
ENSG00000099804	CDC34	0.139	1.724E-06
ENSG00000088986	DYNLL1	0.058	1.739E-06
ENSG00000287632	AC112253.1	0.200	1.739E-06
ENSG00000113282	CLINT1	-0.032	1.774E-06
ENSG00000025770	NCAPH2	-0.053	1.793E-06

ENSG00000112146	FBXO9	0.091	1.822E-06
ENSG00000159023	EPB41	0.135	1.850E-06
ENSG00000253549	CA3-AS1	0.201	1.872E-06
ENSG00000135392	DNAJC14	-0.034	1.882E-06
ENSG00000127540	UQCR11	0.092	1.937E-06
ENSG00000144290	SLC4A10	-0.222	1.944E-06
ENSG00000124102	PI3	0.183	1.966E-06
ENSG00000140287	HDC	-0.273	1.966E-06
ENSG00000212283	SNORD89	0.154	1.966E-06
ENSG00000118689	FOXO3	0.118	2.019E-06
ENSG00000105639	JAK3	0.067	2.051E-06
ENSG00000173825	TIGD3	-0.108	2.220E-06
ENSG00000112234	FBXL4	0.043	2.276E-06
ENSG00000173221	GLRX	0.066	2.348E-06
ENSG00000198258	UBL5	0.075	2.352E-06
ENSG00000213639	PPP1CB	0.049	2.374E-06
ENSG00000162923	WDR26	0.062	2.582E-06
ENSG00000152270	PDE3B	-0.051	2.583E-06
ENSG00000181061	HIGD1A	0.077	2.676E-06
ENSG00000234076	TPRG1-AS1	0.186	2.676E-06
ENSG00000102760	RGCC	0.090	2.676E-06
ENSG00000168913	ENHO	-0.183	3.112E-06
ENSG00000137216	TMEM63B	0.161	3.356E-06
ENSG00000132819	RBM38	0.154	3.449E-06
ENSG00000073792	IGF2BP2	0.160	3.579E-06
ENSG00000131446	MGAT1	-0.036	3.590E-06
ENSG00000163751	CPA3	-0.232	3.767E-06
ENSG00000234129	AC073529.1	0.151	3.935E-06
ENSG00000163444	TMEM183A	0.049	4.005E-06
ENSG00000100225	FBXO7	0.140	4.005E-06
ENSG00000116990	MYCL	-0.065	4.022E-06
ENSG00000164398	ACSL6	0.090	4.318E-06
ENSG00000176896	TCEANC	0.072	4.403E-06
ENSG00000110693	SOX6	0.151	4.507E-06
ENSG00000206177	HBM	0.192	4.680E-06
ENSG00000009307	CSDE1	0.050	4.751E-06
ENSG00000106261	ZKSCAN1	0.065	4.986E-06
ENSG00000136999	CCN3	-0.129	5.125E-06
ENSG00000119986	AVPI1	-0.139	5.366E-06
ENSG00000130821	SLC6A8	0.181	5.366E-06
ENSG00000107521	HPS1	0.090	5.382E-06
ENSG00000163220	S100A9	0.100	5.452E-06
ENSG00000136932	TRMO	-0.035	5.578E-06
ENSG00000261556	SMG1P7	0.068	5.668E-06
ENSG00000211896	IGHG1	-0.210	5.687E-06
ENSG00000156298	TSPAN7	0.221	5.756E-06
ENSG00000197993	KEL	0.165	5.963E-06

ENSG00000143774	GUK1	0.128	5.970E-06
ENSG00000155463	OXA1L	-0.026	6.212E-06
ENSG00000100104	SRRD	0.121	6.615E-06
ENSG00000118046	STK11	0.079	7.182E-06
ENSG00000249437	NAIP	0.109	7.340E-06
ENSG00000102145	GATA1	0.147	7.403E-06
ENSG00000065491	TBC1D22B	0.101	7.595E-06
ENSG00000115649	CNPPD1	0.094	7.605E-06
ENSG00000105855	ITGB8	-0.231	7.605E-06
ENSG00000179348	GATA2	-0.228	7.714E-06
ENSG00000119782	FKBP1B	0.138	7.995E-06
ENSG00000127328	RAB3IP	0.074	8.159E-06
ENSG00000185630	PBX1	0.149	8.159E-06
ENSG00000211893	IGHG2	-0.219	8.257E-06
ENSG00000183625	CCR3	-0.126	8.705E-06
ENSG00000204257	HLA-DMA	-0.055	8.836E-06
ENSG00000115641	FHL2	0.148	8.836E-06
ENSG00000176022	B3GALT6	-0.045	9.050E-06
ENSG00000137757	CASP5	0.135	9.113E-06
ENSG00000182749	PAQR7	-0.071	9.130E-06
ENSG00000176595	KBTBD11	-0.059	9.140E-06
ENSG00000242574	HLA-DMB	-0.058	9.535E-06
ENSG00000145741	BTF3	0.065	9.602E-06
ENSG00000164047	CAMP	0.175	9.623E-06
ENSG00000008441	NFIX	0.156	1.047E-05
ENSG00000149483	TMEM138	0.063	1.074E-05
ENSG00000244687	UBE2V1	0.051	1.074E-05
ENSG00000055208	TAB2	0.037	1.076E-05
ENSG00000116199	FAM20B	0.058	1.101E-05
ENSG00000103257	SLC7A5	0.132	1.134E-05
ENSG00000106462	EZH2	0.074	1.155E-05
ENSG00000129696	TTI2	-0.036	1.167E-05
ENSG00000172349	IL16	-0.032	1.183E-05
ENSG00000143479	DYRK3	0.152	1.211E-05
ENSG00000122741	DCAF10	0.070	1.212E-05
ENSG00000258819	LINC02289	-0.144	1.212E-05
ENSG00000253982	AC100810.1	0.125	1.213E-05
ENSG00000116675	DNAJC6	0.163	1.241E-05
ENSG00000169385	RNASE2	0.136	1.249E-05
ENSG00000236320	SLFN14	0.147	1.256E-05
ENSG00000111450	STX2	0.079	1.267E-05
ENSG00000114698	PLSCR4	0.170	1.267E-05
ENSG00000184792	OSBP2	0.177	1.303E-05
ENSG00000197646	PDCD1LG2	0.163	1.305E-05
ENSG00000198959	TGM2	0.156	1.305E-05
ENSG00000246363	LINC02458	-0.194	1.305E-05
ENSG00000101216	GMEB2	-0.039	1.305E-05

ENSG00000196890	H2BU1	0.139	1.305E-05
ENSG00000145365	TIFA	0.070	1.328E-05
ENSG00000119636	BBOF1	0.147	1.345E-05
ENSG00000133112	TPT1	0.116	1.376E-05
ENSG00000145335	SNCA	0.148	1.376E-05
ENSG00000229961	AL357143.1	-0.171	1.379E-05
ENSG00000263465	SRSF8	0.059	1.380E-05
ENSG00000051341	POLQ	0.128	1.450E-05
ENSG00000158856	DMTN	0.164	1.497E-05
ENSG00000170315	UBB	0.135	1.497E-05
ENSG00000107290	SETX	-0.035	1.543E-05
ENSG00000139679	LPAR6	0.114	1.556E-05
ENSG00000223865	HLA-DPB1	-0.067	1.563E-05
ENSG00000121104	FAM117A	0.094	1.563E-05
ENSG00000157107	FCHO2	0.094	1.563E-05
ENSG00000122692	SMU1	-0.025	1.579E-05
ENSG00000196517	SLC6A9	0.176	1.581E-05
ENSG00000149534	MS4A2	-0.247	1.581E-05
ENSG00000162599	NFIA	0.064	1.581E-05
ENSG00000144320	LNPK	0.074	1.581E-05
ENSG00000211892	IGHG4	-0.261	1.581E-05
ENSG00000184557	SOCS3	0.101	1.616E-05
ENSG00000210082	MT-RNR2	0.118	1.625E-05
ENSG00000154589	LY96	0.112	1.630E-05
ENSG00000254554	AC080023.1	0.131	1.649E-05
ENSG00000198900	TOP1	0.056	1.667E-05
ENSG00000279369	AC046185.3	-0.042	1.724E-05
ENSG00000104892	KLC3	0.182	1.742E-05
ENSG00000091129	NRCAM	-0.227	1.760E-05
ENSG00000122026	RPL21	0.115	1.817E-05
ENSG00000214960	CRPPA	0.129	1.836E-05
ENSG00000099968	BCL2L13	0.070	1.836E-05
ENSG00000078804	TP53INP2	-0.141	1.843E-05
ENSG00000109674	NEIL3	0.137	1.861E-05
ENSG00000104660	LEPROTL1	-0.036	1.864E-05
ENSG00000248477	NAIPP3	0.135	1.885E-05
ENSG00000255398	HCAR3	0.095	1.910E-05
ENSG00000165629	ATP5F1C	0.068	1.946E-05
ENSG00000013306	SLC25A39	0.153	1.977E-05
ENSG00000076043	REXO2	0.053	1.989E-05
ENSG00000244734	HBB	0.244	1.989E-05
ENSG00000123349	PFDN5	0.114	1.996E-05
ENSG00000231389	HLA-DPA1	-0.065	2.067E-05
ENSG00000260592	AC130456.3	0.140	2.072E-05
ENSG00000136003	ISCU	0.052	2.084E-05
ENSG00000120217	CD274	0.114	2.094E-05
ENSG00000005238	FAM214B	0.077	2.094E-05

ENSG00000136960	ENPP2	-0.109	2.163E-05
ENSG00000153046	CDYL	0.103	2.200E-05
ENSG00000169442	CD52	0.110	2.240E-05
ENSG00000100060	MFNG	-0.041	2.301E-05
ENSG00000172671	ZFAND4	0.059	2.312E-05
ENSG00000135924	DNAJB2	0.103	2.349E-05
ENSG00000149182	ARFGAP2	-0.029	2.361E-05
ENSG00000154122	ANKH	0.108	2.365E-05
ENSG00000105701	FKBP8	0.141	2.406E-05
ENSG00000132773	TOE1	-0.051	2.406E-05
ENSG00000182944	EWSR1	-0.020	2.421E-05
ENSG00000266412	NCOA4	0.091	2.440E-05
ENSG00000130560	UBAC1	0.049	2.496E-05
ENSG00000172977	KAT5	-0.034	2.508E-05
ENSG00000103510	KAT8	-0.032	2.528E-05
ENSG00000198830	HMGN2	-0.035	2.566E-05
ENSG00000145901	TNIP1	0.056	2.599E-05
ENSG00000168003	SLC3A2	-0.047	2.599E-05
ENSG00000173992	CCS	0.059	2.694E-05
ENSG00000105732	ZNF574	-0.048	2.695E-05
ENSG00000153317	ASAP1	0.084	2.709E-05
ENSG00000124469	CEACAM8	0.204	2.744E-05
ENSG00000136732	GYPC	0.136	2.758E-05
ENSG00000167671	UBXN6	0.134	2.786E-05
ENSG00000122644	ARL4A	0.108	2.828E-05
ENSG00000076770	MBNL3	0.135	3.010E-05
ENSG00000174485	DENND4A	0.054	3.048E-05
ENSG00000168802	CHTF8	-0.042	3.078E-05
ENSG00000268555	AC123912.4	0.200	3.078E-05
ENSG00000233901	LINC01503	0.104	3.203E-05
ENSG00000040199	PHLPP2	0.121	3.221E-05
ENSG00000113070	HBEGF	-0.126	3.306E-05
ENSG00000170571	EMB	0.043	3.351E-05
ENSG00000239857	GET4	-0.039	3.689E-05
ENSG00000187097	ENTPD5	0.076	3.845E-05
ENSG00000019995	ZRANB1	0.056	3.856E-05
ENSG00000145244	CORIN	0.235	3.875E-05
ENSG00000114737	CISH	0.067	3.920E-05
ENSG00000152078	TLCD4	0.145	3.920E-05
ENSG00000260231	KDM7A-DT	0.121	3.920E-05
ENSG00000112293	GPLD1	0.137	3.930E-05
ENSG00000138756	BMP2K	0.062	3.948E-05
ENSG00000196998	WDR45	0.079	3.964E-05
ENSG00000166169	POLL	0.082	3.974E-05
ENSG00000135525	MAP7	-0.113	3.974E-05
ENSG00000196419	XRCC6	-0.038	3.986E-05
ENSG00000049759	NEDD4L	0.105	4.075E-05

ENSG00000253986	AC104561.3	0.176	4.075E-05
ENSG00000184743	ATL3	0.029	4.151E-05
ENSG00000168159	RNF187	0.086	4.203E-05
ENSG00000287100	AL078600.1	0.096	4.211E-05
ENSG00000196126	HLA-DRB1	-0.069	4.255E-05
ENSG00000007968	E2F2	0.139	4.255E-05
ENSG00000132792	CTNBL1	-0.033	4.281E-05
ENSG00000108950	FAM20A	0.194	4.281E-05
ENSG00000100325	ASCC2	0.110	4.442E-05
ENSG00000128487	SPECC1	0.114	4.454E-05
ENSG00000136908	DPM2	0.126	4.479E-05
ENSG00000278233	RNA5-8SN2	0.182	4.502E-05
ENSG00000204227	RING1	-0.040	4.547E-05
ENSG00000173391	OLR1	0.210	4.581E-05
ENSG00000198918	RPL39	0.155	4.810E-05
ENSG00000179869	ABCA13	0.193	4.814E-05
ENSG00000177239	MAN1B1	-0.036	4.931E-05
ENSG00000108309	RUNDC3A	0.171	4.935E-05
ENSG00000170540	ARL6IP1	0.050	4.961E-05
ENSG00000133069	TMCC2	0.145	5.019E-05
ENSG00000196961	AP2A1	0.097	5.032E-05
ENSG00000163634	THOC7	0.056	5.032E-05
ENSG00000076864	RAP1GAP	0.396	5.057E-05
ENSG00000204217	BMPR2	0.055	5.078E-05
ENSG00000103363	ELOB	0.085	5.078E-05
ENSG00000178722	C5orf64	-0.220	5.078E-05
ENSG00000177868	SVBP	0.084	5.177E-05
ENSG00000120158	RCL1	0.069	5.241E-05
ENSG00000145423	SFRP2	0.191	5.241E-05
ENSG00000179914	ITLN1	0.186	5.241E-05
ENSG00000039068	CDH1	0.158	5.344E-05
ENSG00000153561	RMND5A	0.078	5.349E-05
ENSG00000165175	MID1IP1	-0.055	5.465E-05
ENSG00000263563	UBBP4	0.166	5.755E-05
ENSG00000113368	LMNB1	0.079	5.783E-05
ENSG00000125375	DMAC2L	0.060	5.795E-05
ENSG00000140564	FURIN	0.099	5.887E-05
ENSG00000233276	GPX1	0.108	5.983E-05
ENSG00000136861	CDK5RAP2	0.048	6.137E-05
ENSG00000141084	RANBP10	0.124	6.250E-05
ENSG00000179841	AKAP5	-0.130	6.340E-05
ENSG00000104164	BLOC1S6	0.031	6.390E-05
ENSG00000182010	RTKN2	0.096	6.448E-05
ENSG00000196323	ZBTB44	0.040	6.459E-05
ENSG00000112308	C6orf62	0.036	6.541E-05
ENSG00000214253	FIS1	0.094	6.627E-05
ENSG00000066279	ASPM	0.115	6.662E-05

ENSG00000166710	B2M	0.070	6.798E-05
ENSG00000133488	SEC14L4	0.157	6.838E-05
ENSG00000163346	PBXIP1	-0.044	6.878E-05
ENSG00000105516	DBP	-0.055	6.896E-05
ENSG00000029153	ARNTL2	0.132	6.939E-05
ENSG00000072274	TFRC	0.085	7.004E-05
ENSG00000179886	TIGD5	-0.054	7.171E-05
ENSG00000252481	SCARNA13	0.110	7.233E-05
ENSG00000181852	RNF41	-0.030	7.288E-05
ENSG00000265354	TIMM23	0.044	7.402E-05
ENSG00000197301	HMGA2-AS1	0.143	7.441E-05
ENSG00000254789	AC073172.1	0.185	7.531E-05
ENSG00000160445	ZER1	0.111	7.553E-05
ENSG00000139192	TAPBPL	-0.044	7.675E-05
ENSG00000276791	AC092117.1	-0.060	7.675E-05
ENSG00000165092	ALDH1A1	-0.085	7.675E-05
ENSG00000232450	AL133517.1	0.112	7.675E-05
ENSG00000169955	ZNF747	-0.044	7.870E-05
ENSG00000173812	EIF1	0.053	7.870E-05
ENSG00000237359	AL354977.2	0.124	7.938E-05
ENSG00000088992	TESC	0.123	8.000E-05
ENSG00000185112	FAM43A	-0.059	8.116E-05
ENSG00000125037	EMC3	0.091	8.187E-05
ENSG00000164125	GASK1B	0.075	8.329E-05
ENSG00000055118	KCNH2	0.133	8.407E-05
ENSG00000211897	IGHG3	-0.197	8.876E-05
ENSG00000171606	ZNF274	-0.035	8.904E-05
ENSG00000079332	SAR1A	-0.025	8.962E-05
ENSG00000152492	CCDC50	-0.061	9.037E-05
ENSG00000226137	BAIAP2-DT	-0.067	9.098E-05
ENSG00000089220	PEBP1	-0.051	9.311E-05
ENSG00000183019	MCEMP1	0.119	9.371E-05
ENSG00000112294	ALDH5A1	0.093	9.371E-05
ENSG00000251442	LINC01094	0.090	9.710E-05
ENSG00000130165	ELOF1	0.094	9.778E-05
ENSG00000101439	CST3	-0.068	9.865E-05
ENSG00000189056	RELN	0.224	9.934E-05
ENSG00000103479	RBL2	-0.029	1.007E-04
ENSG00000154723	ATP5PF	0.073	1.013E-04
ENSG00000288156	AC104530.1	-0.053	1.013E-04
ENSG00000133872	SARAF	-0.031	1.022E-04
ENSG00000067596	DHX8	-0.038	1.027E-04
ENSG00000159461	AMFR	0.055	1.031E-04
ENSG00000242550	SERPINB10	0.183	1.035E-04
ENSG00000089041	P2RX7	0.061	1.035E-04
ENSG00000090238	YPEL3	0.094	1.045E-04
ENSG00000119042	SATB2	0.181	1.051E-04

ENSG00000179639	FCER1A	-0.126	1.057E-04
ENSG00000124701	APOBEC2	0.190	1.106E-04
ENSG00000183111	ARHGEF37	0.143	1.111E-04
ENSG00000151474	FRMD4A	0.140	1.111E-04
ENSG00000254999	BRK1	0.042	1.124E-04
ENSG00000125651	GTF2F1	-0.047	1.130E-04
ENSG00000165996	HACD1	0.141	1.188E-04
ENSG00000163736	PPBP	0.124	1.209E-04
ENSG00000184489	PTP4A3	-0.073	1.210E-04
ENSG00000173889	PHC3	0.037	1.217E-04
ENSG00000204463	BAG6	0.084	1.223E-04
ENSG00000204560	DHX16	-0.030	1.238E-04
ENSG00000230426	LINC01036	0.136	1.260E-04
ENSG00000087085	ACHE	0.200	1.279E-04
ENSG00000225447	RPS15AP10	0.084	1.281E-04
ENSG00000281969	AL592158.1	-0.258	1.300E-04
ENSG00000104824	HNRNPL	-0.028	1.309E-04
ENSG00000134602	STK26	-0.033	1.337E-04
ENSG00000169621	APLF	0.067	1.337E-04
ENSG00000174123	TLR10	0.069	1.337E-04
ENSG00000183762	KREMEN1	0.126	1.337E-04
ENSG00000207445	SNORD15B	0.167	1.349E-04
ENSG00000137812	KNL1	0.152	1.358E-04
ENSG00000189221	MAOA	0.252	1.375E-04
ENSG00000217555	CKLF	0.058	1.399E-04
ENSG00000204936	CD177	0.279	1.400E-04
ENSG00000287193	AC132938.6	0.131	1.417E-04
ENSG00000175348	TMEM9B	0.043	1.418E-04
ENSG00000102174	PHEX	-0.152	1.418E-04
ENSG00000105393	BABAM1	0.068	1.418E-04
ENSG00000135451	TROAP	0.129	1.423E-04
ENSG00000105492	SIGLEC6	-0.123	1.424E-04
ENSG00000102870	ZNF629	-0.053	1.425E-04
ENSG00000158715	SLC45A3	-0.150	1.438E-04
ENSG00000171295	ZNF440	-0.041	1.438E-04
ENSG00000134419	RPS15A	0.127	1.467E-04
ENSG00000166171	DPCD	0.115	1.474E-04
ENSG00000178538	CA8	-0.174	1.474E-04
ENSG00000140264	SERF2	0.085	1.474E-04
ENSG00000102384	CENPI	0.105	1.474E-04
ENSG00000116874	WARS2	-0.050	1.483E-04
ENSG00000078124	ACER3	0.046	1.499E-04
ENSG00000176749	CDK5R1	-0.079	1.512E-04
ENSG00000078140	UBE2K	0.035	1.515E-04
ENSG00000075415	SLC25A3	-0.030	1.530E-04
ENSG00000165949	IFI27	0.268	1.532E-04
ENSG00000196652	ZKSCAN5	-0.031	1.534E-04

ENSG00000169919	GUSB	-0.038	1.565E-04
ENSG00000179950	PUF60	-0.042	1.568E-04
ENSG00000214717	ZBED1	-0.045	1.574E-04
ENSG00000109332	UBE2D3	0.042	1.585E-04
ENSG00000017483	SLC38A5	0.108	1.593E-04
ENSG00000156853	ZNF689	-0.041	1.609E-04
ENSG00000120265	PCMT1	0.046	1.633E-04
ENSG00000011028	MRC2	0.146	1.654E-04
ENSG00000198873	GRK5	-0.035	1.660E-04
ENSG00000163421	PROK2	0.103	1.678E-04
ENSG00000146535	GNA12	0.096	1.720E-04
ENSG00000107262	BAG1	0.106	1.765E-04
ENSG00000123908	AGO2	0.080	1.768E-04
ENSG00000244038	DDOST	-0.033	1.771E-04
ENSG00000177954	RPS27	0.132	1.840E-04
ENSG00000173926	MARCHF3	0.094	1.840E-04
ENSG00000100650	SRSF5	-0.026	1.854E-04
ENSG00000155256	ZFYVE27	-0.035	1.861E-04
ENSG00000179526	SHARPIN	0.085	1.883E-04
ENSG00000100105	PATZ1	-0.037	1.909E-04
ENSG00000180875	GREM2	0.168	1.909E-04
ENSG00000111144	LTA4H	0.055	1.909E-04
ENSG00000117362	APH1A	-0.031	1.913E-04
ENSG00000005302	MSL3	0.038	1.937E-04
ENSG00000239855	IGKV1-6	-0.192	1.948E-04
ENSG00000104267	CA2	0.115	1.948E-04
ENSG00000145431	PDGFC	0.089	1.961E-04
ENSG00000137193	PIM1	0.091	1.994E-04
ENSG00000160216	AGPAT3	0.052	2.011E-04
ENSG00000204397	CARD16	0.062	2.066E-04
ENSG00000288612	AL133351.4	0.106	2.066E-04
ENSG00000138867	GUCD1	0.099	2.066E-04
ENSG00000145555	MYO10	0.173	2.066E-04
ENSG00000211640	IGLV6-57	-0.173	2.076E-04
ENSG00000165029	ABCA1	-0.102	2.095E-04
ENSG00000141543	EIF4A3	-0.039	2.151E-04
ENSG00000101343	CRNKL1	-0.032	2.152E-04
ENSG00000112053	SLC26A8	0.118	2.152E-04
ENSG00000137210	TMEM14B	0.041	2.152E-04
ENSG00000271092	TLCD4-RWDD3	0.078	2.203E-04
ENSG00000007516	BAIAP3	-0.129	2.204E-04
ENSG00000156787	TBC1D31	0.071	2.224E-04
ENSG00000263961	RHEX	-0.203	2.260E-04
ENSG00000178719	GRINA	0.108	2.265E-04
ENSG00000211584	SLC48A1	0.108	2.318E-04
ENSG00000156482	RPL30	0.079	2.318E-04
ENSG00000113369	ARRDC3	-0.056	2.478E-04

ENSG00000146063	TRIM41	-0.039	2.486E-04
ENSG00000135960	EDAR	-0.121	2.486E-04
ENSG00000166189	HPS6	-0.040	2.518E-04
ENSG00000122378	PRXL2A	-0.087	2.518E-04
ENSG00000145495	MARCHF6	0.041	2.518E-04
ENSG00000238241	CCR12P	-0.148	2.571E-04
ENSG00000114346	ECT2	0.070	2.578E-04
ENSG00000287255	AC007877.1	0.119	2.608E-04
ENSG00000028839	TBPL1	0.053	2.650E-04
ENSG00000146215	CRIP3	0.120	2.650E-04
ENSG00000136279	DBNL	-0.036	2.650E-04
ENSG00000158828	PINK1	0.088	2.688E-04
ENSG00000215196	BASP1-AS1	0.147	2.701E-04
ENSG00000106003	LFNG	-0.039	2.714E-04
ENSG00000103275	UBE2I	-0.025	2.737E-04
ENSG00000230615	AL139220.2	0.144	2.787E-04
ENSG00000162367	TAL1	0.129	2.828E-04
ENSG00000127884	ECHS1	-0.041	2.848E-04
ENSG00000053371	AKR7A2	-0.041	2.848E-04
ENSG00000124226	RNF114	-0.026	2.860E-04
ENSG00000161813	LARP4	0.047	2.893E-04
ENSG00000107719	PALD1	-0.141	2.895E-04
ENSG00000143776	CDC42BPA	0.134	2.895E-04
ENSG00000111707	SUDS3	0.032	2.897E-04
ENSG00000196792	STRN3	0.041	2.908E-04
ENSG00000129355	CDKN2D	0.065	2.954E-04
ENSG00000185261	KIAA0825	0.069	2.954E-04
ENSG00000228474	OST4	0.056	2.983E-04
ENSG00000260549	MT1L	0.218	2.988E-04
ENSG00000185291	IL3RA	-0.125	2.988E-04
ENSG00000187866	FAM122A	0.023	3.024E-04
ENSG00000276317	AL357033.3	-0.081	3.024E-04
ENSG00000153823	PID1	-0.080	3.033E-04
ENSG00000167986	DDB1	0.045	3.048E-04
ENSG00000083857	FAT1	0.203	3.119E-04
ENSG00000184588	PDE4B	-0.042	3.139E-04
ENSG00000135441	BLOC1S1	0.051	3.146E-04
ENSG00000126107	HECTD3	0.052	3.157E-04
ENSG00000081985	IL12RB2	-0.122	3.159E-04
ENSG00000200785	SNORD8	0.177	3.180E-04
ENSG00000138346	DNA2	0.096	3.181E-04
ENSG00000151923	TIAL1	0.051	3.227E-04
ENSG00000196562	SULF2	-0.063	3.325E-04
ENSG00000146109	ABT1	-0.033	3.362E-04
ENSG00000161526	SAP30BP	-0.024	3.373E-04
ENSG00000164430	CGAS	0.038	3.373E-04
ENSG00000166886	NAB2	-0.053	3.438E-04

ENSG00000172965	MIR4435-2HG	0.055	3.438E-04
ENSG00000213741	RPS29	0.106	3.438E-04
ENSG00000280498	SNORA16A	0.220	3.438E-04
ENSG00000118193	KIF14	0.099	3.458E-04
ENSG00000148344	PTGES	-0.194	3.488E-04
ENSG00000183741	CBX6	-0.029	3.490E-04
ENSG00000112200	ZNF451	0.032	3.507E-04
ENSG00000179632	MAF1	0.077	3.530E-04
ENSG00000110888	CAPRIN2	0.060	3.544E-04
ENSG00000182149	IST1	-0.025	3.557E-04
ENSG00000109189	USP46	0.063	3.561E-04
ENSG00000145088	EAF2	0.059	3.579E-04
ENSG00000182389	CACNB4	-0.112	3.589E-04
ENSG00000253154	AC100801.1	0.256	3.624E-04
ENSG00000124228	DDX27	-0.031	3.681E-04
ENSG00000167657	DAPK3	-0.046	3.690E-04
ENSG00000136840	ST6GALNAC4	0.118	3.810E-04
ENSG00000077684	JADE1	-0.027	3.939E-04
ENSG00000182872	RBM10	-0.034	4.036E-04
ENSG00000176208	ATAD5	0.055	4.036E-04
ENSG00000238622	SNORD97	0.180	4.106E-04
ENSG00000165480	SKA3	0.116	4.137E-04
ENSG00000187244	BCAM	0.198	4.211E-04
ENSG00000205531	NAP1L4	0.035	4.211E-04
ENSG00000285796	AL162458.1	-0.041	4.211E-04
ENSG00000183137	CEP57L1	0.091	4.300E-04
ENSG00000166848	TERF2IP	0.039	4.303E-04
ENSG00000172270	BSG	0.113	4.337E-04
ENSG00000125691	RPL23	0.132	4.337E-04
ENSG00000116668	SWT1	0.069	4.363E-04
ENSG00000109436	TBC1D9	-0.055	4.375E-04
ENSG00000111775	COX6A1	0.043	4.443E-04
ENSG00000238113	LINC01410	0.076	4.559E-04
ENSG00000213949	ITGA1	0.098	4.591E-04
ENSG00000133816	MICAL2	0.074	4.676E-04
ENSG00000116678	LEPR	0.081	4.763E-04
ENSG00000249937	LINC02223	-0.226	4.813E-04
ENSG00000118680	MYL12B	0.043	4.862E-04
ENSG00000164484	TMEM200A	0.097	4.880E-04
ENSG00000214736	TOMM6	0.053	4.895E-04
ENSG00000140968	IRF8	-0.041	4.914E-04
ENSG00000154957	ZNF18	-0.032	4.945E-04
ENSG00000088205	DDX18	-0.032	4.945E-04
ENSG00000168209	DDIT4	-0.069	4.957E-04
ENSG00000182810	DDX28	-0.037	5.035E-04
ENSG00000187713	TMEM203	-0.037	5.091E-04
ENSG00000025800	KPNA6	0.039	5.097E-04

ENSG00000148429	USP6NL	0.045	5.097E-04
ENSG00000285999	AC025442.2	0.046	5.106E-04
ENSG00000159592	GPBP1L1	0.031	5.106E-04
ENSG00000172794	RAB37	-0.039	5.106E-04
ENSG00000287131	AC096970.1	0.125	5.122E-04
ENSG00000111728	ST8SIA1	0.089	5.122E-04
ENSG00000198734	F5	0.087	5.122E-04
ENSG00000160961	ZNF333	-0.040	5.122E-04
ENSG00000180185	FAHD1	0.063	5.164E-04
ENSG00000136542	GALNT5	0.141	5.203E-04
ENSG00000162769	FLVCR1	0.062	5.247E-04
ENSG00000263934	SNORD3A	0.143	5.258E-04
ENSG00000256581	NLRP9P1	0.106	5.274E-04
ENSG00000170476	MZB1	-0.123	5.274E-04
ENSG00000186001	LRCH3	0.049	5.340E-04
ENSG00000124343	XG	0.214	5.344E-04
ENSG00000204681	GABBR1	0.080	5.366E-04
ENSG00000136504	KAT7	-0.027	5.375E-04
ENSG00000145912	NHP2	-0.044	5.400E-04
ENSG00000109790	KLHL5	0.038	5.408E-04
ENSG00000136492	BRIP1	0.100	5.408E-04
ENSG00000241666	AL031733.2	-0.081	5.418E-04
ENSG00000149792	MRPL49	-0.029	5.419E-04
ENSG00000071082	RPL31	0.151	5.433E-04
ENSG00000132906	CASP9	-0.053	5.433E-04
ENSG00000171161	ZNF672	-0.031	5.488E-04
ENSG00000161944	ASGR2	0.086	5.497E-04
ENSG00000112473	SLC39A7	-0.032	5.559E-04
ENSG00000177733	HNRNPA0	-0.036	5.625E-04
ENSG00000123473	STIL	0.109	5.629E-04
ENSG00000110108	TMEM109	-0.043	5.634E-04
ENSG00000245552	AP000787.1	0.075	5.731E-04
ENSG00000065618	COL17A1	0.203	5.808E-04
ENSG00000133302	SLF1	0.046	5.809E-04
ENSG00000137656	BUD13	-0.025	5.809E-04
ENSG00000106682	EIF4H	-0.019	5.809E-04
ENSG00000182774	RPS17	0.115	5.852E-04
ENSG00000259959	AC107068.1	0.102	5.852E-04
ENSG00000256553	TRAV1-2	-0.112	5.893E-04
ENSG00000159915	ZNF233	0.162	5.927E-04
ENSG00000253190	AC084082.1	0.151	5.957E-04
ENSG00000187650	VMAC	-0.038	5.972E-04
ENSG00000132471	WBP2	0.073	6.049E-04
ENSG00000288349	AC139272.1	0.228	6.131E-04
ENSG00000239961	LILRA4	-0.140	6.137E-04
ENSG00000163788	SNRK	-0.033	6.144E-04
ENSG00000105889	STEAP1B	0.124	6.169E-04

ENSG00000137460	FHDC1	0.096	6.176E-04
ENSG00000176994	SMCR8	-0.025	6.232E-04
ENSG00000275713	H2BC9	-0.059	6.263E-04
ENSG00000279320	AC069528.2	0.092	6.290E-04
ENSG00000177971	IMP3	-0.040	6.397E-04
ENSG00000141570	CBX8	-0.083	6.426E-04
ENSG00000198730	CTR9	-0.033	6.478E-04
ENSG00000103415	HMOX2	-0.032	6.478E-04
ENSG00000179922	ZNF784	-0.055	6.504E-04
ENSG00000277142	LINC00235	-0.058	6.537E-04
ENSG00000163961	RNF168	-0.026	6.656E-04
ENSG00000148143	ZNF462	0.219	6.680E-04
ENSG00000070010	UFD1	0.032	6.828E-04
ENSG00000149218	ENDOD1	0.059	6.852E-04
ENSG00000133639	BTG1	-0.030	6.922E-04
ENSG00000113552	GNPDA1	-0.039	6.948E-04
ENSG00000156304	SCAF4	0.052	6.949E-04
ENSG00000134755	DSC2	0.111	6.963E-04
ENSG00000116704	SLC35D1	-0.027	6.976E-04
ENSG00000104549	SQLE	0.061	6.984E-04
ENSG00000231607	DLEU2	0.044	7.130E-04
ENSG00000186469	GNG2	-0.033	7.132E-04
ENSG00000126522	ASL	-0.050	7.208E-04
ENSG00000166164	BRD7	-0.028	7.208E-04
ENSG00000173933	RBM4	-0.018	7.315E-04
ENSG00000188021	UBQLN2	0.034	7.395E-04
ENSG00000130640	TUBGCP2	-0.033	7.450E-04
ENSG00000125818	PSMF1	0.100	7.462E-04
ENSG00000102837	OLFM4	0.236	7.495E-04
ENSG00000132514	CLEC10A	-0.081	7.614E-04
ENSG00000134440	NARS1	-0.027	7.614E-04
ENSG00000073737	DHRS9	-0.090	7.675E-04
ENSG00000232112	TMA7	0.088	7.678E-04
ENSG00000198829	SUCNR1	0.109	7.683E-04
ENSG00000171863	RPS7	0.133	7.722E-04
ENSG00000213614	HEXA	-0.025	7.750E-04
ENSG00000173064	HECTD4	0.068	7.798E-04
ENSG00000099337	KCNK6	-0.044	7.804E-04
ENSG00000178075	GRAMD1C	-0.098	7.804E-04
ENSG00000090060	PAPOLA	0.027	7.830E-04
ENSG00000163808	KIF15	0.107	7.866E-04
ENSG00000277586	NEFL	0.131	7.868E-04
ENSG00000198925	ATG9A	0.058	7.871E-04
ENSG00000234062	AL390879.1	0.134	7.874E-04
ENSG00000154767	XPC	-0.030	7.890E-04
ENSG00000165943	MOAP1	-0.034	7.940E-04
ENSG00000156171	DRAM2	0.035	7.945E-04

ENSG00000084092	NOA1	-0.028	7.954E-04
ENSG00000163349	HIPK1	0.047	8.058E-04
ENSG00000038532	CLEC16A	0.066	8.060E-04
ENSG00000158488	CD1E	-0.141	8.060E-04
ENSG00000157554	ERG	0.172	8.060E-04
ENSG00000207142	Y_RNA	0.451	8.061E-04
ENSG00000099785	MARCHF2	0.088	8.165E-04
ENSG00000156966	B3GNT7	-0.122	8.202E-04
ENSG00000217416	ISCA1P1	0.339	8.208E-04
ENSG00000267750	RUNDC3A-AS1	0.176	8.208E-04
ENSG00000163406	SLC15A2	0.090	8.208E-04
ENSG00000113812	ACTR8	-0.032	8.208E-04
ENSG00000161179	YDJC	-0.047	8.222E-04
ENSG00000266094	RASSF5	-0.028	8.240E-04
ENSG00000156735	BAG4	0.029	8.243E-04
ENSG00000111057	KRT18	-0.092	8.243E-04
ENSG00000148908	RGS10	0.075	8.243E-04
ENSG00000100380	ST13	0.058	8.286E-04
ENSG00000156804	FBXO32	-0.059	8.341E-04
ENSG00000197111	PCBP2	0.052	8.341E-04
ENSG00000232680	AC002511.1	0.123	8.346E-04
ENSG00000084207	GSTP1	-0.045	8.374E-04
ENSG00000105127	AKAP8	-0.025	8.399E-04
ENSG00000132170	PPARG	0.162	8.408E-04
ENSG00000204455	TRIM51BP	-0.231	8.471E-04
ENSG00000170035	UBE2E3	0.052	8.545E-04
ENSG00000110911	SLC11A2	0.035	8.645E-04
ENSG00000260528	FAM157C	0.093	8.679E-04
ENSG00000286342	AC073210.3	0.170	8.710E-04
ENSG00000174358	SLC6A19	0.228	8.844E-04
ENSG00000023734	STRAP	0.051	8.883E-04
ENSG00000223482	NUTM2A-AS1	0.058	8.883E-04
ENSG00000139970	RTN1	-0.069	8.915E-04
ENSG00000103404	USP31	0.043	8.974E-04
ENSG00000042062	RIPOR3	0.126	8.974E-04
ENSG00000205250	E2F4	0.041	8.974E-04
ENSG00000154217	PITPNC1	-0.031	8.984E-04
ENSG00000140416	TPM1	0.066	8.990E-04
ENSG00000111729	CLEC4A	0.055	8.990E-04
ENSG00000249992	TMEM158	0.184	9.007E-04
ENSG00000185669	SNAI3	-0.050	9.020E-04
ENSG00000184602	SNN	-0.051	9.028E-04
ENSG00000063322	MED29	-0.036	9.049E-04
ENSG00000010017	RANBP9	0.035	9.094E-04
ENSG00000154269	ENPP3	-0.148	9.151E-04
ENSG00000197208	SLC22A4	0.070	9.158E-04
ENSG00000167613	LAIR1	0.035	9.182E-04

ENSG00000117394	SLC2A1	0.072	9.206E-04
ENSG00000188243	COMMD6	0.141	9.463E-04
ENSG00000235169	SMIM1	0.208	9.486E-04
ENSG00000172164	SNTB1	0.034	9.616E-04
ENSG00000136193	SCRN1	-0.049	9.790E-04
ENSG00000117450	PRDX1	0.042	9.880E-04
ENSG00000172985	SH3RF3	-0.092	9.900E-04
ENSG00000186185	KIF18B	0.166	9.960E-04
ENSG00000139651	ZNF740	-0.031	1.000E-03
ENSG00000196684	HSH2D	-0.055	1.001E-03
ENSG00000131323	TRAF3	0.039	1.001E-03
ENSG00000197061	H4C3	0.074	1.001E-03
ENSG00000115718	PROC	-0.157	1.007E-03
ENSG00000129244	ATP1B2	0.185	1.008E-03
ENSG00000275221	H2AC15	-0.067	1.015E-03
ENSG00000086666	ZFAND6	0.040	1.020E-03
ENSG00000182899	RPL35A	0.080	1.021E-03
ENSG00000105618	PRPF31	-0.039	1.028E-03
ENSG00000156411	ATP5MPL	0.081	1.036E-03
ENSG00000164733	CTSB	0.067	1.043E-03
ENSG00000081692	JMJD4	-0.046	1.052E-03
ENSG00000185236	RAB11B	0.073	1.054E-03
ENSG00000183691	NOG	-0.141	1.054E-03
ENSG00000116489	CAPZA1	0.039	1.055E-03
ENSG00000120137	PANK3	0.025	1.070E-03
ENSG00000109685	NSD2	0.044	1.101E-03
ENSG00000165140	FBP1	-0.053	1.103E-03
ENSG00000156381	ANKRD9	0.135	1.105E-03
ENSG00000188186	LAMTOR4	-0.044	1.112E-03
ENSG00000137331	IER3	-0.072	1.113E-03
ENSG00000117592	PRDX6	0.097	1.116E-03
ENSG00000146540	C7orf50	-0.057	1.116E-03
ENSG00000136021	SCYL2	0.031	1.124E-03
ENSG00000139514	SLC7A1	0.072	1.126E-03
ENSG00000008083	JARID2	-0.043	1.143E-03
ENSG00000139354	GAS2L3	0.120	1.143E-03
ENSG00000006576	PHTF2	0.032	1.144E-03
ENSG00000249684	AC106795.2	0.105	1.155E-03
ENSG00000166046	TCP11L2	0.054	1.160E-03
ENSG00000138640	FAM13A	0.073	1.177E-03
ENSG00000076984	MAP2K7	0.063	1.185E-03
ENSG00000175376	EIF1AD	-0.032	1.187E-03
ENSG00000196188	CTSE	0.142	1.198E-03
ENSG00000204084	INPP5B	-0.033	1.203E-03
ENSG00000143199	ADCY10	0.144	1.204E-03
ENSG00000171631	P2RY6	-0.142	1.217E-03
ENSG00000180089	TMEM86B	0.099	1.230E-03

ENSG00000262049	AC139530.1	-0.056	1.235E-03
ENSG00000057704	TMCC3	-0.063	1.237E-03
ENSG00000136068	FLNB	-0.050	1.239E-03
ENSG00000058668	ATP2B4	0.059	1.242E-03
ENSG00000204020	LIPN	-0.088	1.253E-03
ENSG00000081052	COL4A4	-0.128	1.268E-03
ENSG00000197415	VEPH1	0.135	1.270E-03
ENSG00000133119	RFC3	-0.039	1.280E-03
ENSG00000105248	YJU2	-0.040	1.282E-03
ENSG00000166428	PLD4	-0.081	1.302E-03
ENSG00000126088	UROD	0.044	1.305E-03
ENSG00000029363	BCLAF1	-0.023	1.309E-03
ENSG00000187474	FPR3	-0.108	1.309E-03
ENSG00000185909	KLHDC8B	-0.089	1.312E-03
ENSG00000112210	RAB23	0.091	1.327E-03
ENSG00000169379	ARL13B	0.047	1.328E-03
ENSG00000106009	BRAT1	-0.039	1.331E-03
ENSG00000168298	H1-4	-0.048	1.353E-03
ENSG00000196872	CRACDL	-0.122	1.354E-03
ENSG00000177565	TBL1XR1	0.032	1.374E-03
ENSG00000121691	CAT	0.055	1.374E-03
ENSG00000180535	BHLHA15	-0.173	1.376E-03
ENSG00000114784	EIF1B	0.048	1.382E-03
ENSG00000101365	IDH3B	-0.028	1.387E-03
ENSG00000006007	GDE1	0.050	1.387E-03
ENSG00000160298	C21orf58	0.073	1.391E-03
ENSG00000249790	AC092490.1	0.211	1.414E-03
ENSG00000223552	CCR5AS	0.142	1.414E-03
ENSG00000260979	AC022167.3	0.131	1.414E-03
ENSG00000247315	ZCCHC3	-0.028	1.417E-03
ENSG00000174684	B4GAT1	-0.068	1.417E-03
ENSG00000253958	CLDN23	-0.114	1.417E-03
ENSG00000117036	ETV3	-0.020	1.418E-03
ENSG00000123500	COL10A1	0.216	1.420E-03
ENSG00000197860	SGTB	0.031	1.424E-03
ENSG00000207088	SNORA7B	0.106	1.435E-03
ENSG00000181544	FANCB	0.058	1.452E-03
ENSG00000249784	SCARNA22	0.144	1.454E-03
ENSG00000118473	SGIP1	0.192	1.457E-03
ENSG00000178163	ZNF518B	-0.035	1.459E-03
ENSG00000184500	PROS1	0.120	1.471E-03
ENSG00000199480	RNA5SP389	0.197	1.479E-03
ENSG00000235453	SMIM27	0.060	1.485E-03
ENSG00000251429	AIDAP2	0.155	1.486E-03
ENSG00000157837	SPPL3	0.061	1.486E-03
ENSG00000204568	MRPS18B	-0.038	1.494E-03
ENSG00000105887	MTPN	0.040	1.498E-03

ENSG00000169564	PCBP1	0.041	1.503E-03
ENSG00000117859	OSBPL9	-0.026	1.520E-03
ENSG00000244045	TMEM199	-0.030	1.530E-03
ENSG00000012983	MAP4K5	0.040	1.535E-03
ENSG00000115604	IL18R1	-0.066	1.540E-03
ENSG00000199352	RNA5S1	0.138	1.540E-03
ENSG00000063978	RNF4	-0.019	1.542E-03
ENSG00000112514	CUTA	-0.039	1.545E-03
ENSG00000100100	PIK3IP1	-0.043	1.549E-03
ENSG00000088179	PTPN4	0.047	1.551E-03
ENSG00000100749	VRK1	0.058	1.554E-03
ENSG00000124120	TTPAL	0.063	1.564E-03
ENSG00000065978	YBX1	0.076	1.580E-03
ENSG00000187997	C17orf99	0.170	1.593E-03
ENSG00000213380	COG8	-0.027	1.594E-03
ENSG00000213231	TCL1B	0.210	1.594E-03
ENSG00000087586	AURKA	0.088	1.594E-03
ENSG00000107281	NPDC1	0.100	1.594E-03
ENSG00000237927	AL078604.2	0.124	1.597E-03
ENSG00000169224	GCSAML	-0.132	1.622E-03
ENSG00000204923	FBXO48	0.037	1.622E-03
ENSG00000159111	MRPL10	-0.041	1.622E-03
ENSG00000164091	WDR82	-0.020	1.633E-03
ENSG00000013583	HEBP1	0.094	1.642E-03
ENSG00000100601	ALKBH1	-0.038	1.659E-03
ENSG00000186081	KRT5	-0.189	1.668E-03
ENSG00000026508	CD44	0.033	1.669E-03
ENSG00000177462	OR2T8	0.187	1.671E-03
ENSG00000176476	SGF29	-0.045	1.675E-03
ENSG00000112218	GPR63	0.110	1.679E-03
ENSG00000183624	HMCES	-0.029	1.684E-03
ENSG00000134248	LAMTOR5	0.041	1.688E-03
ENSG00000101425	BPI	0.135	1.702E-03
ENSG00000184047	DIABLO	-0.030	1.702E-03
ENSG00000100479	POLE2	0.105	1.729E-03
ENSG00000153234	NR4A2	-0.089	1.747E-03
ENSG00000167994	RAB3IL1	0.142	1.750E-03
ENSG00000141295	SCRN2	-0.045	1.762E-03
ENSG00000245532	NEAT1	0.072	1.772E-03
ENSG00000207008	SNORA54	0.103	1.772E-03
ENSG00000095906	NUBP2	-0.041	1.776E-03
ENSG00000177613	CSTF2T	-0.030	1.785E-03
ENSG00000182983	ZNF662	-0.114	1.785E-03
ENSG00000104889	RNASEH2A	-0.046	1.793E-03
ENSG00000179593	ALOX15B	-0.154	1.798E-03
ENSG00000105426	PTPRS	-0.136	1.832E-03
ENSG00000133574	GIMAP4	-0.034	1.835E-03

ENSG00000285417	BX571818.1	-0.083	1.849E-03
ENSG00000183621	ZNF438	0.054	1.851E-03
ENSG00000116151	MORN1	-0.060	1.861E-03
ENSG00000057657	PRDM1	0.040	1.872E-03
ENSG00000262370	AC108134.3	-0.068	1.872E-03
ENSG00000106327	TFR2	0.106	1.882E-03
ENSG00000235105	AL356968.2	0.248	1.910E-03
ENSG00000164124	TMEM144	0.091	1.913E-03
ENSG00000162961	DPY30	0.058	1.913E-03
ENSG00000197629	MPEG1	-0.041	1.913E-03
ENSG00000060491	OGFR	-0.035	1.917E-03
ENSG00000179104	TMTC2	0.040	1.920E-03
ENSG00000136490	LIMD2	-0.037	1.937E-03
ENSG00000105610	KLF1	0.121	1.945E-03
ENSG00000148296	SURF6	-0.032	1.950E-03
ENSG00000134333	LDHA	0.032	1.952E-03
ENSG00000006194	ZNF263	-0.028	1.958E-03
ENSG00000196544	BORCS6	-0.035	1.982E-03
ENSG00000141985	SH3GL1	0.053	1.982E-03
ENSG00000117533	VAMP4	0.034	1.983E-03
ENSG00000166598	HSP90B1	-0.032	1.986E-03
ENSG00000157216	SSBP3	0.060	2.014E-03
ENSG00000148926	ADM	0.083	2.019E-03
ENSG00000101246	ARFRP1	-0.030	2.035E-03
ENSG00000130433	CACNG6	-0.151	2.035E-03
ENSG00000013275	PSMC4	-0.032	2.043E-03
ENSG00000213593	TMX2	-0.026	2.043E-03
ENSG00000163637	PRICKLE2	-0.185	2.068E-03
ENSG00000123700	KCNJ2	0.067	2.068E-03
ENSG00000094975	SUCO	0.039	2.068E-03
ENSG00000099250	NRP1	-0.121	2.068E-03
ENSG00000180628	PCGF5	0.071	2.068E-03
ENSG00000146409	SLC18B1	0.044	2.068E-03
ENSG00000133884	DPF2	-0.034	2.086E-03
ENSG00000224950	AL390066.1	0.054	2.095E-03
ENSG00000116473	RAP1A	0.032	2.099E-03
ENSG00000160049	DFFA	-0.031	2.106E-03
ENSG00000264229	RNU4ATAC	0.133	2.116E-03
ENSG00000107736	CDH23	-0.051	2.116E-03
ENSG00000271736	LINC02772	0.125	2.124E-03
ENSG00000095932	SMIM24	0.144	2.130E-03
ENSG00000282885	AL627171.2	0.088	2.145E-03
ENSG00000137601	NEK1	0.062	2.178E-03
ENSG00000005108	THSD7A	-0.218	2.178E-03
ENSG00000082515	MRPL22	0.056	2.180E-03
ENSG00000152332	UHMK1	0.023	2.192E-03
ENSG00000256433	AC005840.2	0.125	2.193E-03

ENSG00000123405	NFE2	0.066	2.197E-03
ENSG00000101460	MAP1LC3A	-0.092	2.221E-03
ENSG00000172667	ZMAT3	0.025	2.221E-03
ENSG00000134955	SLC37A2	-0.049	2.252E-03
ENSG00000171659	GPR34	-0.089	2.256E-03
ENSG00000164162	ANAPC10	0.052	2.258E-03
ENSG00000075223	SEMA3C	-0.066	2.261E-03
ENSG00000127920	GNG11	0.091	2.267E-03
ENSG00000124608	AARS2	-0.034	2.282E-03
ENSG00000182985	CADM1	-0.131	2.295E-03
ENSG00000155368	DBI	0.065	2.304E-03
ENSG00000174428	GTF2IRD2B	-0.055	2.306E-03
ENSG00000280832	GSEC	0.076	2.307E-03
ENSG00000198858	R3HDM4	0.090	2.320E-03
ENSG00000165115	KIF27	-0.062	2.331E-03
ENSG00000066135	KDM4A	-0.029	2.332E-03
ENSG00000221995	TIAF1	0.071	2.341E-03
ENSG00000101557	USP14	0.044	2.341E-03
ENSG00000142208	AKT1	-0.037	2.342E-03
ENSG00000137073	UBAP2	0.066	2.358E-03
ENSG00000204842	ATXN2	0.053	2.378E-03
ENSG00000125249	RAP2A	0.053	2.385E-03
ENSG00000211598	IGKV4-1	-0.119	2.395E-03
ENSG00000196230	TUBB	-0.025	2.409E-03
ENSG00000180537	RNF182	0.275	2.429E-03
ENSG00000169413	RNASE6	-0.063	2.429E-03
ENSG00000109475	RPL34	0.143	2.437E-03
ENSG00000118496	FBXO30	0.031	2.450E-03
ENSG00000125538	IL1B	0.061	2.458E-03
ENSG00000100056	ESS2	-0.038	2.466E-03
ENSG00000211625	IGKV3D-20	-0.190	2.470E-03
ENSG00000140386	SCAPER	-0.038	2.470E-03
ENSG00000121413	ZSCAN18	-0.058	2.477E-03
ENSG00000214022	REPIN1	-0.030	2.477E-03
ENSG00000157404	KIT	-0.092	2.495E-03
ENSG00000211660	IGLV2-23	-0.124	2.506E-03
ENSG00000185825	BCAP31	-0.028	2.510E-03
ENSG00000156471	PTDSS1	-0.026	2.518E-03
ENSG00000116717	GADD45A	0.062	2.518E-03
ENSG00000164691	TAGAP	-0.032	2.528E-03
ENSG00000124882	EREG	-0.155	2.551E-03
ENSG00000215271	HOMEZ	-0.041	2.592E-03
ENSG00000118520	ARG1	0.122	2.595E-03
ENSG00000211662	IGLV3-21	-0.146	2.595E-03
ENSG00000131469	RPL27	0.089	2.595E-03
ENSG00000104805	NUCB1	0.053	2.616E-03
ENSG00000093167	LRRFIP2	0.033	2.637E-03

ENSG00000104885	DOT1L	0.082	2.639E-03
ENSG00000163898	LIPH	0.156	2.647E-03
ENSG00000174611	KY	-0.096	2.647E-03
ENSG00000123095	BHLHE41	-0.167	2.651E-03
ENSG00000078747	ITCH	-0.026	2.656E-03
ENSG00000248429	FAM198B-AS1	0.085	2.694E-03
ENSG00000204438	GPANK1	-0.036	2.708E-03
ENSG00000142583	SLC2A5	0.114	2.710E-03
ENSG00000249673	NOP14-AS1	-0.036	2.710E-03
ENSG00000125384	PTGER2	0.038	2.711E-03
ENSG00000089248	ERP29	-0.031	2.711E-03
ENSG00000274370	AC130371.2	-0.084	2.727E-03
ENSG00000105617	LENG1	-0.038	2.734E-03
ENSG00000101052	IFT52	0.046	2.747E-03
ENSG00000109927	TECTA	0.106	2.749E-03
ENSG00000207166	SNORA68	0.110	2.757E-03
ENSG00000169507	SLC38A11	0.166	2.793E-03
ENSG00000173762	CD7	-0.065	2.798E-03
ENSG00000237499	WAKMAR2	-0.057	2.824E-03
ENSG00000273320	AC007032.1	0.078	2.835E-03
ENSG00000204590	GNL1	-0.035	2.848E-03
ENSG00000117091	CD48	0.048	2.851E-03
ENSG00000107742	SPOCK2	-0.048	2.854E-03
ENSG00000109107	ALDOC	-0.050	2.911E-03
ENSG00000144746	ARL6IP5	0.029	2.912E-03
ENSG00000139193	CD27	-0.058	2.912E-03
ENSG00000100532	CGRRF1	0.047	2.979E-03
ENSG00000143158	MPC2	0.041	2.983E-03
ENSG00000255367	AC127526.2	0.150	2.983E-03
ENSG00000187735	TCEA1	0.031	2.994E-03
ENSG00000169439	SDC2	-0.145	2.994E-03
ENSG00000181631	P2RY13	0.055	2.994E-03
ENSG00000122641	INHBA	0.170	3.017E-03
ENSG00000198894	CIPC	-0.033	3.053E-03
ENSG00000211649	IGLV7-46	-0.160	3.064E-03
ENSG00000233093	LINC00892	0.103	3.064E-03
ENSG00000230724	LINC01001	0.104	3.067E-03
ENSG00000132383	RPA1	0.043	3.092E-03
ENSG00000100644	HIF1A	-0.039	3.092E-03
ENSG00000208892	SNORA49	0.100	3.092E-03
ENSG00000166797	CIAO2A	0.055	3.107E-03
ENSG00000138190	EXOC6	0.044	3.110E-03
ENSG00000163171	CDC42EP3	0.045	3.114E-03
ENSG00000188582	PAQR9	0.168	3.114E-03
ENSG00000119392	GLE1	-0.022	3.150E-03
ENSG00000118705	RPN2	-0.026	3.167E-03
ENSG00000086506	HBQ1	0.127	3.167E-03

ENSG00000149474	KAT14	-0.032	3.167E-03
ENSG00000170468	RIOX1	-0.032	3.167E-03
ENSG00000011198	ABHD5	-0.058	3.167E-03
ENSG00000183684	ALYREF	-0.037	3.176E-03
ENSG00000075975	MKRN2	-0.018	3.183E-03
ENSG00000207304	SNORA8	0.140	3.188E-03
ENSG00000099256	PRTFDC1	0.118	3.193E-03
ENSG00000197465	GYPE	0.127	3.193E-03
ENSG00000109099	PMP22	-0.125	3.193E-03
ENSG00000162413	KLHL21	-0.045	3.210E-03
ENSG00000115944	COX7A2L	0.034	3.210E-03
ENSG00000157625	TAB3	0.037	3.214E-03
ENSG00000140678	ITGAX	0.068	3.214E-03
ENSG00000150093	ITGB1	0.038	3.214E-03
ENSG00000177370	TIMM22	-0.032	3.214E-03
ENSG00000155506	LARP1	0.045	3.218E-03
ENSG00000105135	ILVBL	-0.048	3.222E-03
ENSG00000100453	GZMB	-0.082	3.242E-03
ENSG00000151292	CSNK1G3	0.065	3.257E-03
ENSG00000186222	BLOC1S4	-0.036	3.257E-03
ENSG00000116016	EPAS1	-0.103	3.257E-03
ENSG00000168904	LRRC28	0.037	3.257E-03
ENSG00000211652	IGLV7-43	-0.151	3.260E-03
ENSG00000113013	HSPA9	-0.030	3.270E-03
ENSG00000183597	TANGO2	0.083	3.278E-03
ENSG00000237094	AL732372.2	0.098	3.314E-03
ENSG00000081148	IMPG2	0.048	3.322E-03
ENSG00000169397	RNASE3	0.160	3.339E-03
ENSG00000152380	FAM151B	0.065	3.349E-03
ENSG00000284959	AC007262.2	0.061	3.349E-03
ENSG00000162591	MEGF6	-0.051	3.368E-03
ENSG00000148484	RSU1	0.050	3.368E-03
ENSG00000197448	GSTK1	0.022	3.369E-03
ENSG00000172936	MYD88	0.047	3.415E-03
ENSG00000167004	PDIA3	-0.031	3.415E-03
ENSG00000019582	CD74	-0.043	3.416E-03
ENSG00000204386	NEU1	-0.035	3.417E-03
ENSG00000169895	SYAP1	-0.030	3.445E-03
ENSG00000241343	RPL36A	0.115	3.460E-03
ENSG00000126262	FFAR2	0.065	3.460E-03
ENSG00000174130	TLR6	0.055	3.486E-03
ENSG00000105053	VRK3	-0.026	3.490E-03
ENSG00000100605	ITPK1	-0.055	3.512E-03
ENSG00000122490	SLC66A2	0.059	3.512E-03
ENSG00000217929	CICP18	0.087	3.516E-03
ENSG00000123444	KBTBD4	-0.029	3.524E-03
ENSG00000137310	TCF19	-0.050	3.525E-03

ENSG00000138326	RPS24	0.092	3.563E-03
ENSG00000162929	KIAA1841	0.056	3.569E-03
ENSG00000125869	LAMP5	-0.107	3.569E-03
ENSG00000126858	RHOT1	0.030	3.569E-03
ENSG00000204815	TTC25	0.119	3.569E-03
ENSG00000185088	RPS27L	0.080	3.580E-03
ENSG00000143545	RAB13	0.118	3.603E-03
ENSG00000158156	XKR8	-0.049	3.618E-03
ENSG00000162378	ZYG11B	-0.030	3.619E-03
ENSG00000166527	CLEC4D	0.077	3.624E-03
ENSG00000267281	ATF7-NPFF	0.069	3.636E-03
ENSG00000080824	HSP90AA1	0.047	3.638E-03
ENSG00000135596	MICAL1	0.042	3.673E-03
ENSG00000169567	HINT1	0.078	3.673E-03
ENSG00000010256	UQCRC1	-0.032	3.677E-03
ENSG00000256683	ZNF350	-0.040	3.680E-03
ENSG00000072506	HSD17B10	-0.036	3.688E-03
ENSG00000100902	PSMA6	0.065	3.692E-03
ENSG00000124614	RPS10	0.073	3.693E-03
ENSG00000278869	BX539320.1	0.075	3.705E-03
ENSG00000108312	UBTF	-0.024	3.708E-03
ENSG00000241860	AL627309.5	0.082	3.721E-03
ENSG00000252010	SCARNA5	0.122	3.731E-03
ENSG00000162433	AK4	0.090	3.735E-03
ENSG00000168329	CX3CR1	0.058	3.834E-03
ENSG00000182307	C8orf33	-0.027	3.843E-03
ENSG00000152700	SAR1B	0.034	3.843E-03
ENSG00000162551	ALPL	0.100	3.858E-03
ENSG00000186376	ZNF75D	-0.022	3.858E-03
ENSG00000225964	NRIR	0.128	3.878E-03
ENSG00000034152	MAP2K3	0.071	3.880E-03
ENSG00000164237	CMBL	0.179	3.888E-03
ENSG00000157184	CPT2	-0.023	3.927E-03
ENSG00000076641	PAG1	0.032	3.928E-03
ENSG00000166200	COPS2	0.056	3.934E-03
ENSG00000146834	MEPCE	-0.029	3.945E-03
ENSG00000267317	AC027307.2	-0.066	3.946E-03
ENSG00000206965	RNU6-5P	0.126	3.946E-03
ENSG00000131080	EDA2R	0.114	3.955E-03
ENSG00000237135	DDX10P1	0.069	3.974E-03
ENSG00000131174	COX7B	0.095	3.984E-03
ENSG00000142676	RPL11	0.071	4.000E-03
ENSG00000236438	FAM157A	0.087	4.005E-03
ENSG00000183576	SETD3	0.044	4.054E-03
ENSG00000198178	CLEC4C	-0.136	4.054E-03
ENSG00000260035	AC051619.7	0.114	4.061E-03
ENSG00000100221	JOSD1	-0.028	4.066E-03

ENSG00000242134	RPL5P13	0.089	4.066E-03
ENSG00000100206	DMC1	0.148	4.072E-03
ENSG00000142227	EMP3	-0.034	4.093E-03
ENSG00000173480	ZNF417	-0.031	4.096E-03
ENSG00000087589	CASS4	-0.051	4.117E-03
ENSG00000152439	ZNF773	-0.048	4.146E-03
ENSG00000164967	RPP25L	-0.036	4.206E-03
ENSG00000088280	ASAP3	0.117	4.222E-03
ENSG00000038427	VCAN	0.061	4.231E-03
ENSG00000147408	CSGALNACT1	0.058	4.248E-03
ENSG00000224650	IGHV3-74	-0.126	4.253E-03
ENSG00000141562	NARF	0.038	4.255E-03
ENSG00000100505	TRIM9	0.119	4.294E-03
ENSG00000169635	HIC2	-0.030	4.300E-03
ENSG00000274173	AL035661.1	0.146	4.310E-03
ENSG00000281000	SNORD3D	0.405	4.328E-03
ENSG00000184481	FOXO4	0.088	4.348E-03
ENSG00000136854	STXBP1	0.112	4.359E-03
ENSG00000235863	B3GALT4	-0.032	4.364E-03
ENSG00000196152	ZNF79	0.034	4.391E-03
ENSG00000137094	DNAJB5	-0.090	4.406E-03
ENSG00000146072	TNFRSF21	-0.092	4.406E-03
ENSG00000113580	NR3C1	-0.022	4.433E-03
ENSG00000158411	MITD1	0.033	4.518E-03
ENSG00000145425	RPS3A	0.125	4.531E-03
ENSG00000204713	TRIM27	-0.025	4.531E-03
ENSG00000243238	IGKV2-30	-0.137	4.531E-03
ENSG00000153551	CMTM7	-0.030	4.541E-03
ENSG00000163053	SLC16A14	-0.123	4.593E-03
ENSG00000184857	TMEM186	-0.035	4.593E-03
ENSG00000207496	SNORA7A	0.102	4.593E-03
ENSG00000185085	INTS5	-0.032	4.595E-03
ENSG00000100393	EP300	0.052	4.597E-03
ENSG00000173320	STOX2	0.209	4.722E-03
ENSG00000100243	CYB5R3	0.072	4.726E-03
ENSG00000151117	TMEM86A	-0.075	4.726E-03
ENSG00000149260	CAPN5	0.108	4.746E-03
ENSG00000102879	CORO1A	-0.037	4.746E-03
ENSG00000167711	SERPINF2	-0.101	4.751E-03
ENSG00000180448	ARHGAP45	-0.029	4.754E-03
ENSG00000109805	NCAPG	0.107	4.754E-03
ENSG00000156136	DCK	0.032	4.767E-03
ENSG00000100433	KCNK10	-0.159	4.780E-03
ENSG00000149313	AASDHPPT	-0.026	4.797E-03
ENSG00000129187	DCTD	-0.027	4.803E-03
ENSG00000164821	DEFA4	0.176	4.827E-03
ENSG00000134830	C5AR2	-0.054	4.827E-03

ENSG00000197506	SLC28A3	0.172	4.842E-03
ENSG00000178935	ZNF552	-0.037	4.853E-03
ENSG00000232022	FAAHP1	0.120	4.908E-03
ENSG00000140939	NOL3	0.084	4.908E-03
ENSG00000239264	TXNDC5	-0.071	4.908E-03
ENSG00000113643	RARS1	0.045	4.908E-03
ENSG00000203880	PCMTD2	0.025	4.927E-03
ENSG00000197121	PGAP1	0.067	4.952E-03
ENSG00000187147	RNF220	-0.024	4.989E-03
ENSG00000129103	SUMF2	-0.029	4.997E-03
ENSG00000008394	MGST1	0.060	4.997E-03
ENSG00000178035	IMPDH2	-0.033	4.999E-03
ENSG00000134899	ERCC5	-0.022	5.030E-03
ENSG00000277991	FP236241.1	-0.298	5.030E-03
ENSG00000257275	AL139020.1	0.144	5.030E-03
ENSG00000148154	UGCG	0.034	5.084E-03
ENSG00000166793	YPEL4	0.101	5.084E-03
ENSG00000187824	TMEM220	-0.115	5.092E-03
ENSG00000160360	GPSM1	-0.088	5.117E-03
ENSG00000095787	WAC	0.021	5.124E-03
ENSG00000083444	PLOD1	-0.048	5.143E-03
ENSG00000122420	PTGFR	0.173	5.160E-03
ENSG00000163412	EIF4E3	0.040	5.166E-03
ENSG00000070915	SLC12A3	-0.150	5.205E-03
ENSG00000068305	MEF2A	0.035	5.205E-03
ENSG00000227740	LINC02803	0.103	5.206E-03
ENSG00000136634	IL10	0.145	5.206E-03
ENSG00000119048	UBE2B	0.046	5.245E-03
ENSG00000183207	RUVBL2	-0.036	5.257E-03
ENSG00000172995	ARPP21	-0.189	5.263E-03
ENSG00000147862	NFIB	0.171	5.284E-03
ENSG00000239183	SNORA84	0.094	5.301E-03
ENSG00000075151	EIF4G3	0.039	5.307E-03
ENSG00000164144	ARFIP1	-0.037	5.322E-03
ENSG00000072840	EVC	0.121	5.322E-03
ENSG00000085662	AKR1B1	-0.033	5.322E-03
ENSG00000111237	VPS29	0.029	5.322E-03
ENSG00000128463	EMC4	-0.027	5.322E-03
ENSG00000140319	SRP14	0.042	5.357E-03
ENSG00000138802	SEC24B	0.023	5.438E-03
ENSG00000274012	RN7SL2	0.067	5.442E-03
ENSG00000164574	GALNT10	0.040	5.442E-03
ENSG00000234745	HLA-B	-0.037	5.442E-03
ENSG00000165185	KIAA1958	0.054	5.480E-03
ENSG00000090006	LTBP4	0.069	5.487E-03
ENSG00000059588	TARBP1	-0.042	5.496E-03
ENSG00000143127	ITGA10	0.088	5.500E-03

ENSG00000168615	ADAM9	0.039	5.504E-03
ENSG00000155827	RNF20	-0.026	5.516E-03
ENSG00000138395	CDK15	-0.171	5.516E-03
ENSG00000130522	JUND	0.048	5.536E-03
ENSG00000106638	TBL2	-0.032	5.546E-03
ENSG00000260923	LINC02193	0.065	5.561E-03
ENSG00000278195	SSTR3	-0.083	5.598E-03
ENSG00000120942	UBIAD1	-0.032	5.606E-03
ENSG00000137497	NUMA1	-0.025	5.610E-03
ENSG00000126432	PRDX5	0.060	5.631E-03
ENSG00000101935	AMMECR1	0.037	5.655E-03
ENSG00000116815	CD58	0.034	5.661E-03
ENSG00000090273	NUDC	-0.028	5.682E-03
ENSG00000148834	GSTO1	0.039	5.690E-03
ENSG00000171617	ENC1	-0.079	5.690E-03
ENSG00000172493	AFF1	0.045	5.690E-03
ENSG00000150593	PDCD4	-0.025	5.715E-03
ENSG00000196372	ASB13	-0.044	5.715E-03
ENSG00000160679	CHTOP	-0.013	5.724E-03
ENSG00000185561	TLCD2	0.103	5.727E-03
ENSG00000167261	DPEP2	-0.047	5.727E-03
ENSG00000225091	SNORA71A	0.095	5.727E-03
ENSG00000161671	EMC10	-0.030	5.727E-03
ENSG00000205220	PSMB10	-0.034	5.727E-03
ENSG00000125779	PANK2	-0.023	5.727E-03
ENSG00000169504	CLIC4	0.042	5.727E-03
ENSG00000155749	FLACC1	0.092	5.747E-03
ENSG00000065413	ANKRD44	-0.025	5.753E-03
ENSG00000110628	SLC22A18	-0.065	5.842E-03
ENSG00000139719	VPS33A	-0.022	5.843E-03
ENSG00000282572	AC215522.2	0.080	5.854E-03
ENSG00000132386	SERPINF1	-0.088	5.854E-03
ENSG00000122483	CCDC18	0.057	5.854E-03
ENSG00000082397	EPB41L3	-0.061	5.854E-03
ENSG00000104904	OAZ1	0.064	5.861E-03
ENSG00000211675	IGLC1	-0.149	5.870E-03
ENSG00000214063	TSPAN4	-0.074	5.889E-03
ENSG00000267365	KCNJ2-AS1	0.071	5.894E-03
ENSG00000153157	SYCP2L	-0.215	5.905E-03
ENSG00000122862	SRGN	0.055	5.921E-03
ENSG00000162517	PEF1	-0.024	5.921E-03
ENSG00000198015	MRPL42	0.042	5.937E-03
ENSG00000100567	PSMA3	0.035	5.937E-03
ENSG00000015676	NUDCD3	-0.025	5.955E-03
ENSG00000103148	NPRL3	0.125	6.000E-03
ENSG00000166454	ATMIN	-0.023	6.051E-03
ENSG00000189253	TRIM64B	-0.214	6.069E-03

ENSG00000222489	SNORA79B	0.104	6.069E-03
ENSG00000110013	SIAE	0.058	6.073E-03
ENSG00000237424	FOXD2-AS1	0.089	6.074E-03
ENSG00000035664	DAPK2	-0.061	6.094E-03
ENSG00000042753	AP2S1	0.043	6.136E-03
ENSG00000166974	MAPRE2	-0.025	6.144E-03
ENSG00000182621	PLCB1	-0.051	6.146E-03
ENSG00000141101	NOB1	-0.038	6.188E-03
ENSG00000163389	POGLUT1	-0.032	6.231E-03
ENSG00000164032	H2AZ1	0.033	6.243E-03
ENSG00000137266	SLC22A23	0.082	6.243E-03
ENSG00000001497	LAS1L	-0.034	6.243E-03
ENSG00000188897	AC099489.1	0.086	6.243E-03
ENSG00000183655	KLHL25	-0.058	6.243E-03
ENSG00000119655	NPC2	-0.038	6.246E-03
ENSG00000173545	ZNF622	-0.025	6.255E-03
ENSG00000155660	PDIA4	-0.033	6.266E-03
ENSG00000168300	PCMTD1	0.038	6.267E-03
ENSG00000177427	MIEF2	-0.044	6.267E-03
ENSG00000172409	CLP1	-0.029	6.350E-03
ENSG00000115827	DCAF17	0.035	6.353E-03
ENSG00000067064	IDI1	0.043	6.389E-03
ENSG00000238227	TMEM250	-0.029	6.422E-03
ENSG00000091483	FH	-0.034	6.424E-03
ENSG00000167664	TMIGD2	-0.075	6.437E-03
ENSG00000111325	OGFOD2	-0.056	6.449E-03
ENSG00000044459	CNTLN	0.050	6.468E-03
ENSG00000070061	ELP1	-0.023	6.519E-03
ENSG00000252623	RNA5SP481	0.151	6.531E-03
ENSG00000143653	SCCPDH	-0.047	6.547E-03
ENSG00000100294	MCAT	-0.054	6.551E-03
ENSG00000242082	SLC5A4-AS1	0.152	6.573E-03
ENSG00000182795	C1orf116	0.113	6.575E-03
ENSG00000101442	ACTR5	-0.031	6.604E-03
ENSG00000180340	FZD2	-0.063	6.619E-03
ENSG00000013619	MAMLD1	0.113	6.629E-03
ENSG00000265681	RPL17	0.102	6.629E-03
ENSG00000116698	SMG7	0.038	6.636E-03
ENSG00000224083	MTCO1P11	0.092	6.663E-03
ENSG00000272734	ADIRF-AS1	-0.059	6.665E-03
ENSG00000168995	SIGLEC7	-0.050	6.667E-03
ENSG00000174744	BRMS1	-0.029	6.671E-03
ENSG00000165568	AKR1E2	0.111	6.691E-03
ENSG00000101193	GID8	0.033	6.734E-03
ENSG00000168389	MFSD2A	-0.065	6.736E-03
ENSG00000204385	SLC44A4	0.177	6.739E-03
ENSG00000075399	VPS9D1	0.050	6.746E-03

ENSG00000003436	TFPI	0.098	6.759E-03
ENSG00000166439	RNF169	-0.023	6.773E-03
ENSG00000135046	ANXA1	0.055	6.842E-03
ENSG00000119686	FLVCR2	0.056	6.853E-03
ENSG00000106484	MEST	-0.076	6.860E-03
ENSG00000198586	TLK1	0.029	6.877E-03
ENSG00000185100	ADSS1	-0.104	6.945E-03
ENSG00000184983	NDUFA6	0.053	6.984E-03
ENSG00000263740	RN7SL4P	0.080	7.014E-03
ENSG00000238009	AL627309.1	0.110	7.022E-03
ENSG00000167447	SMG8	-0.027	7.045E-03
ENSG00000211651	IGLV1-44	-0.137	7.146E-03
ENSG00000110042	DTX4	-0.065	7.146E-03
ENSG00000166313	APBB1	-0.048	7.146E-03
ENSG00000113300	CNOT6	0.028	7.157E-03
ENSG00000171914	TLN2	0.149	7.229E-03
ENSG00000154822	PLCL2	0.023	7.290E-03
ENSG00000104870	FCGRT	-0.043	7.299E-03
ENSG00000170425	ADORA2B	0.078	7.312E-03
ENSG00000100207	TCF20	-0.024	7.312E-03
ENSG00000151702	FLI1	-0.022	7.318E-03
ENSG00000162434	JAK1	-0.027	7.346E-03
ENSG00000163719	MTMR14	-0.024	7.385E-03
ENSG00000115053	NCL	-0.034	7.414E-03
ENSG00000139714	MORN3	-0.078	7.426E-03
ENSG00000040487	SLC66A1	-0.042	7.446E-03
ENSG00000183780	SLC35F3	-0.132	7.499E-03
ENSG00000139832	RAB20	-0.064	7.499E-03
ENSG00000249693	THEGL	0.138	7.501E-03
ENSG00000259366	AC108449.2	0.101	7.501E-03
ENSG00000003096	KLHL13	-0.104	7.506E-03
ENSG00000126882	FAM78A	-0.021	7.510E-03
ENSG00000162512	SDC3	-0.130	7.568E-03
ENSG00000215244	LINC02649	0.081	7.601E-03
ENSG00000072401	UBE2D1	0.054	7.601E-03
ENSG00000261737	CLCA4-AS1	0.092	7.656E-03
ENSG00000123643	SLC36A1	0.052	7.658E-03
ENSG00000285437	POLR2J3	0.049	7.672E-03
ENSG00000182568	SATB1	-0.036	7.672E-03
ENSG00000085063	CD59	0.043	7.677E-03
ENSG00000101132	PFDN4	0.106	7.736E-03
ENSG00000250571	GLI4	-0.054	7.736E-03
ENSG00000154917	RAB6B	0.133	7.736E-03
ENSG00000068971	PPP2R5B	0.073	7.751E-03
ENSG00000070950	RAD18	0.045	7.769E-03
ENSG00000135709	KIAA0513	-0.042	7.783E-03
ENSG00000092931	MFSD11	0.026	7.786E-03

ENSG00000231535	LINC00278	0.045	7.792E-03
ENSG00000128918	ALDH1A2	0.110	7.818E-03
ENSG00000285509	TBCEL-TECTA	0.130	7.834E-03
ENSG00000114395	CYB561D2	-0.030	7.850E-03
ENSG00000102038	SMARCA1	-0.137	7.895E-03
ENSG00000201321	RNA5S9	0.143	7.895E-03
ENSG00000131669	NINJ1	-0.054	7.904E-03
ENSG00000115392	FANCL	0.074	7.918E-03
ENSG00000106123	EPHB6	-0.054	7.954E-03
ENSG00000119522	DENND1A	0.045	8.024E-03
ENSG00000180776	ZDHHC20	0.039	8.048E-03
ENSG00000126759	CFP	-0.045	8.049E-03
ENSG00000065911	MTHFD2	0.048	8.053E-03
ENSG00000076662	ICAM3	-0.046	8.053E-03
ENSG00000161970	RPL26	0.109	8.072E-03
ENSG00000095564	BTAF1	-0.021	8.176E-03
ENSG00000069248	NUP133	-0.031	8.176E-03
ENSG00000163812	ZDHHC3	0.038	8.241E-03
ENSG00000146416	AIG1	0.042	8.266E-03
ENSG00000130520	LSM4	-0.033	8.266E-03
ENSG00000016864	GLT8D1	-0.026	8.266E-03
ENSG00000243056	EIF4EBP3	-0.113	8.266E-03
ENSG00000087460	GNAS	0.046	8.266E-03
ENSG00000189319	FAM53B	-0.026	8.329E-03
ENSG00000272758	WDR5B-DT	-0.038	8.329E-03
ENSG00000241889	AC079944.2	-0.121	8.337E-03
ENSG00000203999	LINC01270	0.096	8.351E-03
ENSG00000136305	CIDEB	-0.037	8.393E-03
ENSG00000171101	SIGLEC17P	-0.100	8.393E-03
ENSG00000179921	GPBAR1	-0.058	8.393E-03
ENSG00000058262	SEC61A1	-0.022	8.445E-03
ENSG00000242525	OR7E100P	0.070	8.445E-03
ENSG00000171155	C1GALT1C1	0.038	8.468E-03
ENSG00000047849	MAP4	0.049	8.476E-03
ENSG00000105676	ARMC6	-0.039	8.498E-03
ENSG00000184436	THAP7	-0.039	8.524E-03
ENSG00000185883	ATP6VOC	0.084	8.528E-03
ENSG00000257242	LINC01619	-0.069	8.549E-03
ENSG00000168702	LRP1B	-0.171	8.566E-03
ENSG00000181472	ZBTB2	-0.021	8.566E-03
ENSG00000271461	CKAP2LP1	0.081	8.566E-03
ENSG00000115310	RTN4	0.026	8.584E-03
ENSG00000249456	AL731577.2	0.078	8.596E-03
ENSG00000127837	AAMP	-0.030	8.617E-03
ENSG00000286828	AC008883.3	0.121	8.640E-03
ENSG00000184470	TXNRD2	0.048	8.640E-03
ENSG00000196873	CBWD3	0.032	8.693E-03

ENSG00000231304	SGO1-AS1	0.071	8.714E-03
ENSG00000259932	AC051619.6	0.109	8.727E-03
ENSG00000102904	TSNAXIP1	0.132	8.733E-03
ENSG00000197057	DTHD1	-0.074	8.810E-03
ENSG00000114302	PRKAR2A	-0.023	8.824E-03
ENSG00000176533	GNG7	-0.052	8.826E-03
ENSG00000132589	FLOT2	0.049	8.826E-03
ENSG00000101639	CEP192	0.024	8.850E-03
ENSG00000167103	PIP5KL1	0.124	8.852E-03
ENSG00000149136	SSRP1	-0.026	8.901E-03
ENSG00000198843	SELENOT	0.031	8.901E-03
ENSG00000103121	CMC2	0.049	8.999E-03
ENSG00000180957	PITPNB	0.041	8.999E-03
ENSG00000255495	AC145124.1	-0.077	9.048E-03
ENSG00000218739	CEBPZOS	0.035	9.057E-03
ENSG00000257267	ZNF271P	0.032	9.057E-03
ENSG00000245060	LINC00847	-0.026	9.058E-03
ENSG00000180769	WDFY3-AS2	0.114	9.069E-03
ENSG00000250722	SELENOP	0.128	9.093E-03
ENSG00000144567	RETREG2	0.045	9.093E-03
ENSG00000102032	RENBP	-0.048	9.148E-03
ENSG00000113719	ERGIC1	-0.044	9.148E-03
ENSG00000012232	EXTL3	-0.046	9.156E-03
ENSG00000275074	NUDT18	-0.038	9.174E-03
ENSG00000106992	AK1	0.117	9.196E-03
ENSG00000138018	SELENOI	0.045	9.267E-03
ENSG00000179978	NAIPP2	0.072	9.269E-03
ENSG00000171766	GATM	-0.080	9.269E-03
ENSG00000115758	ODC1	0.067	9.269E-03
ENSG00000106701	FSD1L	0.048	9.346E-03
ENSG00000100129	EIF3L	-0.038	9.356E-03
ENSG00000150637	CD226	0.034	9.356E-03
ENSG00000242802	AP5Z1	-0.037	9.357E-03
ENSG00000204472	AIF1	0.049	9.360E-03
ENSG00000070761	CFAP20	-0.030	9.360E-03
ENSG00000161618	ALDH16A1	-0.044	9.360E-03
ENSG00000079277	MKNK1	0.043	9.364E-03
ENSG00000115128	SF3B6	0.053	9.364E-03
ENSG00000067836	ROGDI	0.064	9.401E-03
ENSG00000165476	REEP3	0.030	9.402E-03
ENSG00000134548	SPX	0.109	9.414E-03
ENSG00000249309	AC020703.1	0.104	9.422E-03
ENSG00000145241	CENPC	-0.030	9.422E-03
ENSG00000142168	SOD1	0.039	9.422E-03
ENSG00000122547	EEPD1	-0.052	9.442E-03
ENSG00000175970	UNC119B	-0.026	9.478E-03
ENSG00000138078	PREPL	-0.026	9.572E-03

ENSG00000242372	EIF6	-0.031	9.580E-03
ENSG00000141385	AFG3L2	-0.033	9.587E-03
ENSG00000159335	PTMS	0.083	9.625E-03
ENSG00000135845	PIGC	0.060	9.628E-03
ENSG00000251259	AC004069.1	0.081	9.636E-03
ENSG00000213719	CLIC1	0.037	9.637E-03
ENSG00000248697	TOX4P1	0.082	9.637E-03
ENSG00000204779	FOXD4L5	0.075	9.644E-03
ENSG00000125520	SLC2A4RG	-0.053	9.715E-03
ENSG00000246985	SOCS2-AS1	0.090	9.792E-03
ENSG00000143382	ADAMTSL4	0.078	9.803E-03
ENSG00000065268	WDR18	-0.047	9.860E-03
ENSG00000169981	ZNF35	-0.040	9.902E-03
ENSG00000170959	DCDC1	0.144	9.905E-03
ENSG00000158813	EDA	0.114	9.912E-03
ENSG00000275993	SIK1B	-0.183	9.912E-03
ENSG00000152952	PLOD2	0.113	9.963E-03
ENSG00000238741	SCARNA7	0.093	9.980E-03
ENSG00000113742	CPEB4	0.040	1.001E-02
ENSG00000196683	TOMM7	0.078	1.001E-02
ENSG00000147174	GCNA	0.040	1.002E-02
ENSG00000148773	MKI67	0.097	1.007E-02
ENSG00000131944	FAAP24	-0.076	1.007E-02
ENSG00000175324	LSM1	0.049	1.009E-02
ENSG00000164292	RHOBTB3	0.071	1.012E-02
ENSG00000138604	GLCE	0.028	1.013E-02
ENSG00000170271	FAXDC2	0.104	1.016E-02
ENSG00000140259	MFAP1	-0.026	1.020E-02
ENSG00000146826	MAP11	-0.037	1.020E-02
ENSG00000107789	MINPP1	0.045	1.021E-02
ENSG00000080839	RBL1	0.042	1.023E-02
ENSG00000121931	LRIF1	-0.027	1.025E-02
ENSG00000087157	PGS1	0.041	1.025E-02
ENSG00000171858	RPS21	0.072	1.025E-02
ENSG00000026103	FAS	0.038	1.034E-02
ENSG00000244642	RN7SL396P	0.070	1.036E-02
ENSG00000236829	Z97634.1	-0.081	1.036E-02
ENSG00000104221	BRF2	-0.028	1.038E-02
ENSG00000168036	CTNNB1	-0.016	1.038E-02
ENSG00000286076	AC005050.3	0.078	1.039E-02
ENSG00000125744	RTN2	0.077	1.043E-02
ENSG00000164904	ALDH7A1	-0.129	1.043E-02
ENSG00000113916	BCL6	0.062	1.043E-02
ENSG00000182858	ALG12	-0.052	1.044E-02
ENSG00000233184	AC093157.1	0.041	1.051E-02
ENSG00000141965	FEM1A	0.035	1.051E-02
ENSG00000101191	DIDO1	-0.014	1.053E-02

ENSG00000106066	CPVL	-0.044	1.060E-02
ENSG00000173153	ESRRA	-0.030	1.060E-02
ENSG00000142534	RPS11	0.040	1.062E-02
ENSG00000143418	CERS2	-0.025	1.062E-02
ENSG00000201998	SNORA23	0.123	1.075E-02
ENSG00000235192	AC009495.3	0.058	1.075E-02
ENSG00000221491	SNORA2C	0.103	1.076E-02
ENSG00000021776	AQR	-0.023	1.076E-02
ENSG00000158850	B4GALT3	0.054	1.076E-02
ENSG00000112306	RPS12	0.045	1.076E-02
ENSG00000086065	CHMP5	0.053	1.078E-02
ENSG00000164414	SLC35A1	0.045	1.078E-02
ENSG00000172500	FIBP	-0.027	1.078E-02
ENSG00000234506	LINC01506	0.090	1.087E-02
ENSG00000253394	LINC00534	0.107	1.087E-02
ENSG00000286388	AC026748.3	-0.063	1.087E-02
ENSG00000171291	ZNF439	-0.044	1.087E-02
ENSG00000106305	AIMP2	-0.032	1.093E-02
ENSG00000112701	SENP6	0.023	1.093E-02
ENSG00000151553	FAM160B1	0.036	1.093E-02
ENSG00000100784	RPS6KA5	-0.036	1.093E-02
ENSG00000248333	CDK11B	-0.027	1.094E-02
ENSG00000135390	ATP5MC2	-0.027	1.095E-02
ENSG00000198400	NTRK1	-0.154	1.095E-02
ENSG00000211459	MT-RNR1	0.091	1.095E-02
ENSG00000228903	RASA4CP	-0.085	1.101E-02
ENSG00000204287	HLA-DRA	-0.041	1.107E-02
ENSG00000114988	LMAN2L	-0.032	1.109E-02
ENSG00000154370	TRIM11	-0.025	1.117E-02
ENSG00000204599	TRIM39	-0.025	1.117E-02
ENSG00000125741	OPA3	-0.040	1.120E-02
ENSG00000132357	CARD6	0.038	1.126E-02
ENSG00000249709	ZNF564	-0.030	1.128E-02
ENSG00000179409	GEMIN4	-0.032	1.128E-02
ENSG00000251432	LINC02615	0.067	1.129E-02
ENSG00000105327	BBC3	-0.048	1.131E-02
ENSG00000223725	AC009226.1	-0.093	1.131E-02
ENSG00000181191	PJA1	-0.041	1.131E-02
ENSG00000125347	IRF1	-0.037	1.132E-02
ENSG00000163754	GYG1	0.034	1.132E-02
ENSG00000143977	SNRPG	0.069	1.136E-02
ENSG00000100632	ERH	0.050	1.138E-02
ENSG00000273544	SNORA44	0.161	1.142E-02
ENSG00000260924	LINC01311	-0.083	1.143E-02
ENSG00000135272	MDFIC	0.032	1.145E-02
ENSG00000196510	ANAPC7	-0.023	1.146E-02
ENSG00000100991	TRPC4AP	-0.020	1.146E-02

ENSG00000090674	MCOLN1	0.069	1.150E-02
ENSG00000239149	SNORA59A	0.143	1.150E-02
ENSG00000177854	TMEM187	-0.054	1.152E-02
ENSG00000133104	SPART	-0.029	1.152E-02
ENSG00000222041	CYTOR	0.041	1.158E-02
ENSG00000211659	IGLV3-25	-0.119	1.158E-02
ENSG00000183751	TBL3	-0.047	1.158E-02
ENSG00000113615	SEC24A	0.028	1.160E-02
ENSG00000112118	MCM3	-0.028	1.163E-02
ENSG00000189369	GSPT2	-0.042	1.166E-02
ENSG00000170854	RIOX2	-0.030	1.166E-02
ENSG00000175567	UCP2	0.049	1.167E-02
ENSG00000243290	IGKV1-12	-0.139	1.171E-02
ENSG00000111490	TBC1D30	-0.077	1.173E-02
ENSG00000204252	HLA-DOA	-0.062	1.173E-02
ENSG00000080854	IGSF9B	0.101	1.174E-02
ENSG00000249087	ZNF436-AS1	-0.050	1.179E-02
ENSG00000173727	AP000769.1	0.087	1.179E-02
ENSG00000163599	CTLA4	-0.050	1.179E-02
ENSG00000113141	IK	-0.020	1.180E-02
ENSG00000127947	PTPN12	0.040	1.180E-02
ENSG00000227533	SLC2A1-AS1	0.101	1.182E-02
ENSG00000103248	MTHFSD	-0.024	1.184E-02
ENSG00000171456	ASXL1	0.029	1.188E-02
ENSG00000185730	ZNF696	-0.048	1.189E-02
ENSG00000265401	AC093484.3	0.120	1.189E-02
ENSG00000125458	NT5C	-0.035	1.192E-02
ENSG00000168259	DNAJC7	-0.016	1.196E-02
ENSG00000134508	CABLES1	-0.162	1.196E-02
ENSG00000186834	HEXIM1	0.029	1.196E-02
ENSG00000152102	FAM168B	-0.019	1.200E-02
ENSG00000079215	SLC1A3	0.112	1.201E-02
ENSG00000100580	TMED8	0.028	1.206E-02
ENSG00000102900	NUP93	-0.032	1.208E-02
ENSG00000286236	AC018755.5	0.104	1.209E-02
ENSG00000130638	ATXN10	0.030	1.209E-02
ENSG00000004487	KDM1A	-0.024	1.215E-02
ENSG00000185361	TNFAIP8L1	-0.030	1.216E-02
ENSG00000110723	EXPH5	-0.076	1.223E-02
ENSG00000284931	AC104389.6	0.244	1.226E-02
ENSG00000238035	AC138035.1	0.068	1.227E-02
ENSG00000125089	SH3TC1	-0.041	1.227E-02
ENSG00000089693	MLF2	-0.033	1.227E-02
ENSG00000211592	IGKC	-0.093	1.227E-02
ENSG00000171714	ANO5	0.091	1.229E-02
ENSG00000142784	WDTC1	0.047	1.229E-02
ENSG00000160993	ALKBH4	-0.041	1.231E-02

ENSG00000108829	LRRCS9	-0.023	1.232E-02
ENSG00000135049	AGTPBP1	0.031	1.237E-02
ENSG00000031003	FAM13B	0.024	1.237E-02
ENSG00000287263	AC008875.3	-0.028	1.240E-02
ENSG00000178149	DALRD3	-0.030	1.243E-02
ENSG00000269044	AC024075.2	-0.034	1.245E-02
ENSG00000133641	C12orf29	0.044	1.248E-02
ENSG00000187189	TSPYL4	-0.024	1.258E-02
ENSG00000180712	LINC02363	0.103	1.263E-02
ENSG00000180891	CUEDC1	-0.053	1.264E-02
ENSG00000011590	ZBTB32	-0.120	1.265E-02
ENSG00000165304	MELK	0.092	1.265E-02
ENSG00000106263	EIF3B	0.032	1.265E-02
ENSG00000241351	IGKV3-11	-0.091	1.266E-02
ENSG00000127528	KLF2	-0.028	1.266E-02
ENSG00000107223	EDF1	-0.028	1.266E-02
ENSG00000142230	SAE1	-0.031	1.267E-02
ENSG00000102172	SMS	-0.029	1.267E-02
ENSG00000114902	SPCS1	-0.028	1.274E-02
ENSG00000148291	SURF2	-0.041	1.276E-02
ENSG00000152234	ATP5F1A	-0.023	1.279E-02
ENSG00000160883	HK3	0.046	1.287E-02
ENSG00000006756	ARSD	-0.036	1.287E-02
ENSG00000089486	CDIP1	-0.043	1.288E-02
ENSG00000211677	IGLC2	-0.102	1.292E-02
ENSG00000147604	RPL7	0.098	1.293E-02
ENSG00000211895	IGHA1	-0.128	1.299E-02
ENSG00000255240	AP001636.3	0.075	1.301E-02
ENSG00000170445	HARS1	-0.017	1.305E-02
ENSG00000221983	UBA52	0.053	1.308E-02
ENSG00000125835	SNRPB	-0.026	1.308E-02
ENSG00000186314	PRELID2	0.080	1.309E-02
ENSG00000146066	HIGD2A	-0.031	1.309E-02
ENSG00000227039	ITGB2-AS1	0.036	1.309E-02
ENSG00000143624	INTS3	0.038	1.309E-02
ENSG00000126821	SGPP1	-0.030	1.309E-02
ENSG00000129680	MAP7D3	-0.046	1.309E-02
ENSG00000185344	ATP6V0A2	-0.021	1.311E-02
ENSG00000071127	WDR1	-0.023	1.316E-02
ENSG00000119681	LTBP2	0.090	1.320E-02
ENSG00000129682	FGF13	0.181	1.321E-02
ENSG00000196922	ZNF252P	-0.032	1.332E-02
ENSG00000125352	RNF113A	-0.028	1.333E-02
ENSG00000101082	SLA2	-0.034	1.337E-02
ENSG00000258101	AC010173.1	0.077	1.338E-02
ENSG00000161203	AP2M1	0.045	1.338E-02
ENSG00000117222	RBBP5	-0.019	1.339E-02

ENSG00000199436	SNORD9	0.125	1.339E-02
ENSG00000101945	SUV39H1	-0.038	1.344E-02
ENSG00000092439	TRPM7	0.025	1.345E-02
ENSG00000135636	DYSF	0.073	1.345E-02
ENSG00000204177	BMS1P1	0.055	1.349E-02
ENSG00000197363	ZNF517	-0.038	1.350E-02
ENSG00000138600	SPPL2A	0.024	1.350E-02
ENSG00000130313	PGLS	-0.030	1.351E-02
ENSG00000122043	LINC00544	0.080	1.352E-02
ENSG00000197540	GZMM	-0.064	1.353E-02
ENSG00000185973	TMLHE	0.031	1.353E-02
ENSG00000207165	SNORA70	0.120	1.358E-02
ENSG00000181817	LSM10	0.030	1.359E-02
ENSG00000182782	HCAR2	0.059	1.359E-02
ENSG00000230551	AC021078.1	0.029	1.359E-02
ENSG00000123505	AMD1	-0.027	1.359E-02
ENSG00000167880	EVPL	0.134	1.369E-02
ENSG00000119640	ACYP1	0.051	1.369E-02
ENSG00000196565	HBG2	0.236	1.369E-02
ENSG00000143942	CHAC2	0.075	1.369E-02
ENSG00000119541	VPS4B	-0.023	1.370E-02
ENSG00000198898	CAPZA2	0.044	1.370E-02
ENSG00000160791	CCR5	-0.064	1.370E-02
ENSG00000010322	NISCH	-0.023	1.374E-02
ENSG00000140284	SLC27A2	-0.096	1.375E-02
ENSG00000142166	IFNAR1	0.033	1.378E-02
ENSG00000271447	MMP28	-0.131	1.385E-02
ENSG00000148297	MED22	-0.025	1.385E-02
ENSG00000106089	STX1A	0.084	1.385E-02
ENSG00000115325	DOK1	-0.034	1.388E-02
ENSG00000135624	CCT7	-0.023	1.391E-02
ENSG00000130826	DKC1	-0.024	1.392E-02
ENSG00000115107	STEAP3	0.072	1.398E-02
ENSG00000085514	PILRA	-0.046	1.398E-02
ENSG00000173988	LRRC63	0.083	1.400E-02
ENSG00000008311	AASS	-0.068	1.406E-02
ENSG00000274523	RCC1L	-0.027	1.406E-02
ENSG00000023445	BIRC3	0.048	1.411E-02
ENSG00000224870	MRPL20-AS1	-0.030	1.411E-02
ENSG00000100034	PPM1F	-0.043	1.412E-02
ENSG00000182004	SNRPE	0.067	1.412E-02
ENSG00000234737	KRT18P15	0.102	1.412E-02
ENSG00000131374	TBC1D5	0.022	1.425E-02
ENSG00000168496	FEN1	-0.035	1.425E-02
ENSG00000147138	GPR174	0.038	1.429E-02
ENSG00000262246	CORO7	-0.032	1.431E-02
ENSG00000181789	COPG1	-0.021	1.431E-02

ENSG00000138119	MYOF	0.066	1.434E-02
ENSG00000100413	POLR3H	-0.033	1.441E-02
ENSG00000174080	CTSF	-0.050	1.442E-02
ENSG00000205181	LINC00654	0.071	1.445E-02
ENSG00000119574	ZBTB45	-0.044	1.446E-02
ENSG00000110651	CD81	-0.036	1.450E-02
ENSG00000160695	VPS11	-0.021	1.456E-02
ENSG00000163659	TIPARP	-0.026	1.456E-02
ENSG00000155016	CYP2U1	-0.037	1.456E-02
ENSG00000159692	CTBP1	-0.024	1.456E-02
ENSG00000114650	SCAP	-0.038	1.456E-02
ENSG00000182220	ATP6AP2	-0.024	1.462E-02
ENSG00000112357	PEX7	-0.044	1.463E-02
ENSG00000148288	GBGT1	0.047	1.465E-02
ENSG00000146833	TRIM4	-0.017	1.465E-02
ENSG00000004660	CAMKK1	-0.047	1.468E-02
ENSG00000260314	MRC1	-0.091	1.470E-02
ENSG00000085721	RRN3	-0.027	1.471E-02
ENSG00000127314	RAP1B	0.024	1.472E-02
ENSG00000104218	CSPP1	0.032	1.472E-02
ENSG00000154001	PPP2R5E	0.023	1.477E-02
ENSG00000206172	HBA1	0.124	1.481E-02
ENSG00000263002	ZNF234	-0.030	1.481E-02
ENSG00000186105	LRRC70	0.064	1.481E-02
ENSG00000134330	IAH1	0.033	1.481E-02
ENSG00000154582	ELOC	0.039	1.481E-02
ENSG00000117899	MESD	-0.020	1.481E-02
ENSG00000121057	AKAP1	-0.043	1.481E-02
ENSG00000234518	PTGES3P1	0.073	1.481E-02
ENSG00000107815	TWNK	-0.047	1.481E-02
ENSG00000121966	CXCR4	-0.032	1.481E-02
ENSG00000087274	ADD1	0.034	1.484E-02
ENSG00000149150	SLC43A1	0.045	1.484E-02
ENSG00000100526	CDKN3	0.112	1.489E-02
ENSG00000250138	AC139495.2	0.140	1.489E-02
ENSG00000154188	ANGPT1	-0.082	1.491E-02
ENSG00000145675	PIK3R1	-0.025	1.494E-02
ENSG00000143319	ISG20L2	-0.025	1.496E-02
ENSG00000173517	PEAK1	0.043	1.496E-02
ENSG00000173915	ATP5MD	0.051	1.497E-02
ENSG00000282508	LINC01002	0.075	1.497E-02
ENSG00000090266	NDUFB2	0.048	1.497E-02
ENSG00000185480	PARPBP	0.060	1.497E-02
ENSG00000147669	POLR2K	0.079	1.499E-02
ENSG00000184216	IRAK1	-0.027	1.500E-02
ENSG00000187010	RHD	0.178	1.500E-02
ENSG00000130592	LSP1	-0.041	1.501E-02

ENSG00000157514	TSC22D3	-0.043	1.504E-02
ENSG00000148450	MSRB2	-0.058	1.504E-02
ENSG00000112144	CILK1	-0.019	1.508E-02
ENSG00000176454	LPCAT4	0.034	1.515E-02
ENSG00000143198	MGST3	0.033	1.516E-02
ENSG00000153250	RBMS1	0.020	1.516E-02
ENSG00000091513	TF	0.089	1.516E-02
ENSG00000177706	FAM20C	0.078	1.516E-02
ENSG00000125962	ARMCX5	-0.038	1.516E-02
ENSG00000212743	LINC02656	0.073	1.516E-02
ENSG00000227730	MTND6P5	0.097	1.516E-02
ENSG00000117632	STMN1	-0.041	1.518E-02
ENSG00000198783	ZNF830	-0.034	1.518E-02
ENSG00000226479	TMEM185B	0.027	1.519E-02
ENSG00000221866	PLXNA4	0.077	1.522E-02
ENSG00000211776	TRAV2	-0.077	1.529E-02
ENSG00000244509	APOBEC3C	0.042	1.529E-02
ENSG00000140379	BCL2A1	0.073	1.529E-02
ENSG00000223547	ZNF844	-0.059	1.529E-02
ENSG00000169957	ZNF768	-0.036	1.531E-02
ENSG00000275126	H4C13	0.072	1.532E-02
ENSG00000120913	PDLIM2	-0.038	1.532E-02
ENSG00000146576	C7orf26	-0.025	1.534E-02
ENSG00000086061	DNAJA1	0.038	1.537E-02
ENSG00000253819	LINC01151	0.134	1.537E-02
ENSG00000217930	PAM16	0.054	1.542E-02
ENSG00000184281	TSSC4	-0.033	1.544E-02
ENSG00000209582	SNORA48	0.078	1.546E-02
ENSG00000007520	TSR3	-0.033	1.552E-02
ENSG00000066654	THUMPD1	-0.026	1.554E-02
ENSG00000224003	YES1P1	0.052	1.556E-02
ENSG00000214870	AC004540.1	0.103	1.561E-02
ENSG00000123143	PKN1	-0.033	1.561E-02
ENSG00000102934	PLL1	-0.134	1.572E-02
ENSG00000268912	AC012313.5	-0.059	1.577E-02
ENSG00000165006	UBAP1	0.044	1.577E-02
ENSG00000264343	NOTCH2NLA	0.037	1.582E-02
ENSG00000119737	GPR75	0.053	1.585E-02
ENSG00000061273	HDAC7	0.038	1.586E-02
ENSG00000042088	TDP1	-0.027	1.590E-02
ENSG00000242114	MTFP1	-0.055	1.591E-02
ENSG00000005194	CIAPIN1	-0.027	1.597E-02
ENSG00000239002	SCARNA10	0.098	1.599E-02
ENSG00000125637	PSD4	-0.029	1.605E-02
ENSG00000268643	AC006486.1	0.204	1.614E-02
ENSG00000186517	ARHGAP30	-0.022	1.614E-02
ENSG00000167977	KCTD5	-0.022	1.615E-02

ENSG00000179082	C9orf106	0.057	1.615E-02
ENSG00000133561	GIMAP6	-0.025	1.624E-02
ENSG00000161267	BDH1	-0.051	1.627E-02
ENSG00000251513	LIX1-AS1	0.100	1.639E-02
ENSG00000133317	LGALS12	-0.064	1.650E-02
ENSG00000109670	FBXW7	0.028	1.651E-02
ENSG00000129810	SGO1	0.086	1.653E-02
ENSG00000196735	HLA-DQA1	-0.055	1.662E-02
ENSG00000273133	AC116651.1	0.099	1.664E-02
ENSG00000253284	AC092828.1	0.096	1.664E-02
ENSG00000167792	NDUFV1	-0.025	1.664E-02
ENSG00000068001	HYAL2	0.043	1.669E-02
ENSG00000125462	MIR9-1HG	0.119	1.678E-02
ENSG00000249129	SUDS3P1	0.095	1.678E-02
ENSG00000135631	RAB11FIP5	0.069	1.678E-02
ENSG00000257743	MGAM2	0.088	1.678E-02
ENSG00000236194	AC099811.1	0.037	1.678E-02
ENSG00000213413	PVRIG	-0.057	1.682E-02
ENSG00000275994	SNORA24	0.156	1.685E-02
ENSG00000232810	TNF	0.043	1.688E-02
ENSG00000172534	HCFC1	0.050	1.699E-02
ENSG00000221869	CEBPD	-0.053	1.710E-02
ENSG00000187514	PTMA	-0.027	1.713E-02
ENSG00000276168	RN7SL1	0.065	1.716E-02
ENSG00000109956	B3GAT1	0.104	1.718E-02
ENSG00000103005	USB1	0.045	1.720E-02
ENSG00000144021	CIAO1	-0.014	1.725E-02
ENSG00000137075	RNF38	0.028	1.728E-02
ENSG00000240583	AQP1	0.101	1.729E-02
ENSG00000163946	TASOR	0.025	1.730E-02
ENSG00000136802	LRRC8A	0.040	1.730E-02
ENSG00000012061	ERCC1	-0.030	1.734E-02
ENSG00000155966	AFF2	0.059	1.734E-02
ENSG00000141447	OSBPL1A	-0.051	1.745E-02
ENSG00000171298	GAA	-0.047	1.758E-02
ENSG00000170037	CNTROB	-0.044	1.758E-02
ENSG00000178947	SMIM10L2A	-0.080	1.758E-02
ENSG00000166833	NAV2	0.154	1.760E-02
ENSG00000116685	KIAA2013	-0.027	1.765E-02
ENSG00000067704	IARS2	-0.024	1.765E-02
ENSG00000139597	N4BP2L1	-0.019	1.768E-02
ENSG00000107249	GLIS3	-0.112	1.770E-02
ENSG00000189043	NDUFA4	0.057	1.770E-02
ENSG00000185252	ZNF74	-0.031	1.771E-02
ENSG00000136710	CCDC115	-0.025	1.779E-02
ENSG00000265735	RN7SL5P	0.072	1.781E-02
ENSG00000103037	SETD6	-0.038	1.782E-02

ENSG00000157778	PSMG3	0.037	1.782E-02
ENSG00000138738	PRDM5	-0.094	1.785E-02
ENSG00000141699	RETREG3	-0.019	1.785E-02
ENSG00000233251	AC007743.1	0.056	1.792E-02
ENSG00000174243	DDX23	-0.018	1.792E-02
ENSG00000268433	MTDHP3	0.151	1.797E-02
ENSG00000269713	NBPF9	0.038	1.800E-02
ENSG00000186310	NAP1L3	-0.068	1.803E-02
ENSG00000115602	IL1RL1	-0.098	1.803E-02
ENSG00000165802	NSMF	-0.038	1.803E-02
ENSG00000198355	PIM3	0.038	1.811E-02
ENSG00000145780	FEM1C	0.023	1.813E-02
ENSG00000171604	CXXC5	-0.043	1.813E-02
ENSG00000156502	SUPV3L1	-0.030	1.814E-02
ENSG00000236333	TRHDE-AS1	0.144	1.827E-02
ENSG00000084090	STARD7	-0.020	1.828E-02
ENSG00000019169	MARCO	0.094	1.828E-02
ENSG00000109519	GRPEL1	-0.026	1.832E-02
ENSG00000124217	MOCS3	-0.026	1.847E-02
ENSG00000280248	AC124319.3	0.077	1.854E-02
ENSG00000067225	PKM	0.032	1.858E-02
ENSG00000102100	SLC35A2	-0.036	1.866E-02
ENSG00000106477	CEP41	-0.047	1.867E-02
ENSG00000114126	TFDP2	0.042	1.867E-02
ENSG00000176597	B3GNT5	0.052	1.876E-02
ENSG00000202198	7SK	-0.695	1.876E-02
ENSG00000178789	CD300LB	-0.040	1.885E-02
ENSG00000110321	EIF4G2	0.017	1.894E-02
ENSG00000158796	DEDD	0.034	1.897E-02
ENSG00000105325	FZR1	0.054	1.898E-02
ENSG00000168439	STIP1	-0.026	1.899E-02
ENSG00000234709	UPF3AP3	-0.045	1.899E-02
ENSG00000279738	AL022311.1	-0.027	1.901E-02
ENSG00000149925	ALDOA	-0.031	1.902E-02
ENSG00000167747	C19orf48	-0.045	1.904E-02
ENSG00000119707	RBM25	-0.018	1.904E-02
ENSG00000163755	HPS3	-0.020	1.906E-02
ENSG00000166166	TRMT61A	-0.040	1.906E-02
ENSG00000087301	TXNDC16	0.037	1.913E-02
ENSG00000167100	SAMD14	0.141	1.917E-02
ENSG00000023228	NDUFS1	-0.019	1.919E-02
ENSG00000013288	MAN2B2	-0.025	1.921E-02
ENSG00000125970	RALY	-0.022	1.929E-02
ENSG00000239951	IGKV3-20	-0.090	1.931E-02
ENSG00000176124	DLEU1	0.052	1.932E-02
ENSG00000178694	NSUN3	0.033	1.937E-02
ENSG00000260077	AC104794.3	0.051	1.941E-02

ENSG00000120451	SNX19	-0.024	1.942E-02
ENSG00000109083	IFT20	0.034	1.942E-02
ENSG00000125945	ZNF436	-0.020	1.943E-02
ENSG00000107957	SH3PXD2A	0.050	1.943E-02
ENSG00000163798	SLC4A1AP	-0.019	1.943E-02
ENSG00000196976	LAGE3	-0.041	1.948E-02
ENSG00000200394	SNORA38B	0.107	1.958E-02
ENSG00000125482	TTF1	-0.020	1.960E-02
ENSG00000100473	COCH	-0.089	1.960E-02
ENSG00000173276	ZBTB21	-0.025	1.960E-02
ENSG00000170522	ELOVL6	0.086	1.960E-02
ENSG00000146830	GIGYF1	-0.037	1.960E-02
ENSG00000197375	SLC22A5	0.054	1.966E-02
ENSG00000136942	RPL35	0.066	1.969E-02
ENSG00000170275	CRTAP	-0.030	1.974E-02
ENSG00000185115	NSMCE3	-0.030	1.976E-02
ENSG00000246273	SBF2-AS1	0.067	1.980E-02
ENSG00000172296	SPTLC3	-0.131	1.984E-02
ENSG00000185619	PCGF3	0.032	1.991E-02
ENSG00000129493	HEATR5A	-0.040	1.991E-02
ENSG00000260742	AC009962.1	0.083	1.994E-02
ENSG00000157077	ZFYVE9	-0.053	1.998E-02
ENSG00000024862	CCDC28A	-0.026	2.001E-02
ENSG00000116741	RGS2	-0.050	2.002E-02
ENSG00000285966	AC007686.4	-0.130	2.004E-02
ENSG00000101363	MANBAL	-0.027	2.004E-02
ENSG00000116691	MIIP	0.041	2.005E-02
ENSG00000218713	AL512378.1	0.111	2.008E-02
ENSG00000172006	ZNF554	-0.039	2.008E-02
ENSG00000167967	E4F1	-0.030	2.016E-02
ENSG00000223509	AC135983.2	0.045	2.016E-02
ENSG00000079616	KIF22	-0.030	2.016E-02
ENSG00000163125	RPRD2	0.035	2.016E-02
ENSG00000156395	SORCS3	-0.110	2.016E-02
ENSG00000077254	USP33	0.016	2.018E-02
ENSG00000170448	NFXL1	0.074	2.021E-02
ENSG00000110446	SLC15A3	-0.038	2.021E-02
ENSG00000163520	FBLN2	-0.134	2.023E-02
ENSG00000184445	KNTC1	0.026	2.024E-02
ENSG00000270562	AC097634.1	-0.038	2.033E-02
ENSG00000083896	YTHDC1	-0.019	2.045E-02
ENSG00000225783	MIAT	0.056	2.045E-02
ENSG00000255801	AC092746.1	-0.089	2.046E-02
ENSG00000130544	ZNF557	-0.026	2.053E-02
ENSG00000170260	ZNF212	-0.026	2.055E-02
ENSG00000119231	SENP5	-0.016	2.055E-02
ENSG00000106588	PSMA2	0.059	2.055E-02

ENSG00000076351	SLC46A1	-0.064	2.058E-02
ENSG00000121680	PEX16	-0.034	2.058E-02
ENSG00000131845	ZNF304	-0.029	2.058E-02
ENSG00000109667	SLC2A9	-0.042	2.058E-02
ENSG00000114023	FAM162A	-0.037	2.059E-02
ENSG00000187980	PLA2G2C	-0.152	2.059E-02
ENSG00000103356	EARS2	-0.042	2.062E-02
ENSG00000272325	NUDT3	-0.019	2.062E-02
ENSG00000096996	IL12RB1	-0.033	2.064E-02
ENSG00000048471	SNX29	0.039	2.066E-02
ENSG00000129315	CCNT1	-0.024	2.066E-02
ENSG00000075035	WSCD2	-0.158	2.075E-02
ENSG00000211746	TRBV19	-0.059	2.079E-02
ENSG00000204439	C6orf47	-0.020	2.079E-02
ENSG00000196449	YRDC	-0.025	2.082E-02
ENSG00000227036	LINC00511	0.121	2.090E-02
ENSG00000101608	MYL12A	0.021	2.092E-02
ENSG00000225345	SNX18P3	0.076	2.093E-02
ENSG00000101473	ACOT8	-0.023	2.101E-02
ENSG00000227057	WDR46	-0.027	2.105E-02
ENSG00000149480	MTA2	-0.021	2.109E-02
ENSG00000145246	ATP10D	-0.034	2.114E-02
ENSG00000182732	RGS6	0.087	2.116E-02
ENSG00000186074	CD300LF	-0.034	2.120E-02
ENSG00000132965	ALOX5AP	-0.050	2.125E-02
ENSG00000144659	SLC25A38	0.048	2.125E-02
ENSG00000220804	LINC01881	0.047	2.126E-02
ENSG00000112062	MAPK14	0.038	2.133E-02
ENSG00000163463	KRTCAP2	-0.027	2.134E-02
ENSG00000207392	SNORA20	0.126	2.139E-02
ENSG00000174125	TLR1	0.040	2.146E-02
ENSG00000270008	AL137247.2	0.176	2.147E-02
ENSG00000287355	AL451123.2	0.077	2.150E-02
ENSG00000108861	DUSP3	0.033	2.150E-02
ENSG00000286809	AC008964.1	0.048	2.154E-02
ENSG00000148308	GTF3C5	-0.026	2.154E-02
ENSG00000093134	VNN3	-0.059	2.162E-02
ENSG00000173597	SULT1B1	0.054	2.163E-02
ENSG00000259349	AC011921.1	-0.075	2.163E-02
ENSG00000200087	SNORA73B	0.084	2.163E-02
ENSG00000185624	P4HB	-0.022	2.164E-02
ENSG00000128654	MTX2	0.041	2.169E-02
ENSG00000109062	SLC9A3R1	-0.028	2.169E-02
ENSG00000196455	PIK3R4	-0.025	2.173E-02
ENSG00000123992	DNPEP	-0.032	2.174E-02
ENSG00000143919	CAMKMT	0.038	2.174E-02
ENSG00000233030	AC243772.2	0.089	2.174E-02

ENSG00000148335	NTMT1	-0.036	2.176E-02
ENSG00000027869	SH2D2A	-0.062	2.178E-02
ENSG00000182853	VMO1	-0.126	2.180E-02
ENSG00000104375	STK3	0.043	2.200E-02
ENSG00000035687	ADSS2	-0.018	2.202E-02
ENSG00000100246	DNAL4	-0.034	2.202E-02
ENSG00000060688	SNRNP40	-0.022	2.209E-02
ENSG00000136877	FPGS	-0.034	2.209E-02
ENSG00000087111	PIGS	-0.023	2.215E-02
ENSG00000147166	ITGB1BP2	0.098	2.219E-02
ENSG00000285953	AC000120.3	0.113	2.220E-02
ENSG00000269343	ZNF587B	-0.021	2.233E-02
ENSG00000158526	TSR2	-0.024	2.236E-02
ENSG00000141873	SLC39A3	-0.041	2.239E-02
ENSG00000185477	GPRIN3	0.027	2.239E-02
ENSG00000095321	CRAT	0.072	2.241E-02
ENSG00000135637	CCDC142	-0.026	2.244E-02
ENSG00000143367	TUFT1	-0.052	2.256E-02
ENSG00000148737	TCF7L2	0.069	2.262E-02
ENSG00000119559	C19orf25	-0.030	2.262E-02
ENSG00000224745	AC063965.2	0.079	2.277E-02
ENSG00000239607	RN7SL573P	0.099	2.277E-02
ENSG00000169093	ASMTL	-0.030	2.278E-02
ENSG00000118960	HS1BP3	-0.027	2.278E-02
ENSG00000235917	MTCO2P11	0.086	2.279E-02
ENSG00000142627	EPHA2	-0.150	2.281E-02
ENSG00000126062	TMEM115	-0.028	2.286E-02
ENSG00000010803	SCMH1	0.039	2.288E-02
ENSG00000110395	CBL	0.054	2.288E-02
ENSG00000155265	GOLGA7B	0.047	2.291E-02
ENSG00000181458	TMEM45A	0.063	2.300E-02
ENSG00000223417	TRIM49D1	-0.181	2.300E-02
ENSG00000089057	SLC23A2	-0.031	2.305E-02
ENSG00000135686	KLHL36	-0.019	2.307E-02
ENSG00000162757	C1orf74	-0.037	2.310E-02
ENSG00000168994	PXDC1	-0.081	2.310E-02
ENSG00000149930	TAOK2	-0.021	2.313E-02
ENSG00000183688	RFLNB	-0.044	2.315E-02
ENSG00000151376	ME3	-0.076	2.315E-02
ENSG00000257246	PHBP19	0.093	2.316E-02
ENSG00000220517	ASS1P1	0.062	2.319E-02
ENSG00000165661	QSOX2	0.031	2.328E-02
ENSG00000259891	AC107375.1	-0.041	2.328E-02
ENSG00000110344	UBE4A	-0.013	2.329E-02
ENSG00000197417	SHPK	-0.027	2.329E-02
ENSG00000179119	SPTY2D1	-0.023	2.336E-02
ENSG00000168872	DDX19A	-0.027	2.340E-02

ENSG00000102753	KPNA3	0.019	2.342E-02
ENSG00000214160	ALG3	-0.032	2.348E-02
ENSG00000100983	GSS	-0.029	2.350E-02
ENSG00000108622	ICAM2	-0.028	2.355E-02
ENSG00000155792	DEPTOR	-0.071	2.360E-02
ENSG00000158604	TMED4	-0.016	2.368E-02
ENSG00000215386	MIR99AHG	-0.126	2.368E-02
ENSG00000272825	AL844908.1	0.051	2.396E-02
ENSG00000143761	ARF1	0.035	2.398E-02
ENSG00000213015	ZNF580	-0.036	2.399E-02
ENSG00000147140	NONO	-0.014	2.411E-02
ENSG00000158691	ZSCAN12	-0.036	2.411E-02
ENSG00000106299	WASL	0.027	2.411E-02
ENSG00000153130	SCOC	0.063	2.411E-02
ENSG00000122912	SLC25A16	0.037	2.411E-02
ENSG00000215068	AC025171.2	-0.022	2.411E-02
ENSG00000132305	IMMT	-0.021	2.413E-02
ENSG00000136161	RCBTB2	0.030	2.416E-02
ENSG00000163536	SERPINI1	0.051	2.420E-02
ENSG00000165782	PIP4P1	-0.019	2.421E-02
ENSG00000268670	AC016586.1	-0.048	2.427E-02
ENSG00000103154	NECAB2	-0.116	2.430E-02
ENSG00000264066	AC024267.1	0.111	2.431E-02
ENSG00000163682	RPL9	0.091	2.433E-02
ENSG00000132004	FBXW9	-0.064	2.435E-02
ENSG00000196812	ZSCAN16	-0.030	2.437E-02
ENSG00000115275	MOGS	-0.027	2.441E-02
ENSG00000235961	PNMA6A	-0.154	2.452E-02
ENSG00000200320	SNORA63	0.090	2.460E-02
ENSG00000226026	AC092802.1	0.060	2.462E-02
ENSG00000272914	AL359532.1	0.077	2.462E-02
ENSG00000138722	MMRN1	0.081	2.462E-02
ENSG00000104756	KCTD9	0.027	2.465E-02
ENSG00000170558	CDH2	-0.110	2.465E-02
ENSG00000228218	ATF4P3	0.080	2.467E-02
ENSG00000168101	NUDT16L1	-0.028	2.470E-02
ENSG00000155465	SLC7A7	-0.034	2.476E-02
ENSG00000100577	GSTZ1	-0.038	2.493E-02
ENSG00000205808	PLPP6	-0.031	2.493E-02
ENSG00000185864	NPIPBA	0.067	2.494E-02
ENSG00000260816	AC027279.1	0.087	2.503E-02
ENSG00000180035	ZNF48	-0.044	2.513E-02
ENSG00000134255	CEPT1	0.021	2.534E-02
ENSG00000073614	KDM5A	-0.019	2.534E-02
ENSG00000149932	TMEM219	-0.025	2.538E-02
ENSG00000235655	H3P6	0.333	2.542E-02
ENSG00000169902	TPST1	-0.081	2.554E-02

ENSG00000149636	DSN1	-0.032	2.566E-02
ENSG00000116809	ZBTB17	-0.033	2.566E-02
ENSG00000166548	TK2	-0.042	2.568E-02
ENSG00000121210	TMEM131L	0.029	2.585E-02
ENSG00000149806	FAU	0.042	2.585E-02
ENSG00000211653	IGLV1-40	-0.104	2.585E-02
ENSG00000107537	PHYH	-0.046	2.590E-02
ENSG00000136682	CBWD2	0.029	2.605E-02
ENSG00000223546	LINC00630	0.038	2.605E-02
ENSG00000175449	RFESD	0.056	2.608E-02
ENSG00000173715	C11orf80	0.046	2.616E-02
ENSG00000103426	CORO7-PAM16	-0.221	2.620E-02
ENSG00000105518	TMEM205	-0.031	2.624E-02
ENSG00000165490	DDIAS	0.052	2.627E-02
ENSG00000250131	AC078881.1	-0.070	2.633E-02
ENSG00000274093	AC009032.1	0.061	2.643E-02
ENSG00000123096	SSPN	-0.085	2.643E-02
ENSG00000148343	MIGA2	-0.034	2.643E-02
ENSG00000141499	WRAP53	-0.035	2.658E-02
ENSG00000286219	NOTCH2NLC	0.034	2.658E-02
ENSG00000198363	ASPH	0.051	2.665E-02
ENSG00000232533	AC093673.1	0.037	2.677E-02
ENSG00000083814	ZNF671	-0.024	2.688E-02
ENSG00000132002	DNAJB1	-0.023	2.689E-02
ENSG00000248098	BCKDHA	-0.043	2.697E-02
ENSG00000155090	KLF10	0.039	2.704E-02
ENSG00000114978	MOB1A	0.020	2.715E-02
ENSG00000133597	ADCK2	-0.033	2.723E-02
ENSG00000211890	IGHA2	-0.121	2.723E-02
ENSG00000171488	LRRC8C	0.024	2.732E-02
ENSG00000140105	WARS1	-0.048	2.739E-02
ENSG00000128268	MGAT3	-0.077	2.742E-02
ENSG00000226253	MRPL35P3	0.088	2.751E-02
ENSG00000185262	UBALD2	0.045	2.754E-02
ENSG00000121957	GPSM2	0.043	2.758E-02
ENSG00000155959	VBP1	0.044	2.758E-02
ENSG00000201955	RNY3P1	0.127	2.759E-02
ENSG00000163359	COL6A3	0.088	2.761E-02
ENSG00000288046	AL031123.5	0.095	2.763E-02
ENSG00000144485	HES6	0.078	2.763E-02
ENSG00000161955	TNFSF13	-0.038	2.773E-02
ENSG00000199347	RNU5E-1	0.145	2.773E-02
ENSG00000136560	TANK	0.022	2.773E-02
ENSG00000285938	AC072022.2	0.083	2.773E-02
ENSG00000208772	SNORD94	0.080	2.773E-02
ENSG00000284024	AC069544.1	-0.020	2.790E-02
ENSG00000105063	PPP6R1	0.031	2.792E-02

ENSG00000084733	RAB10	0.021	2.798E-02
ENSG00000202357	Y_RNA	0.123	2.805E-02
ENSG00000184056	VPS33B	-0.038	2.805E-02
ENSG00000154781	CCDC174	-0.022	2.805E-02
ENSG00000274943	AC079684.1	0.080	2.812E-02
ENSG00000162496	DHRS3	-0.038	2.812E-02
ENSG00000141452	RMC1	0.024	2.812E-02
ENSG00000245888	NSMCE1-DT	0.096	2.817E-02
ENSG00000115170	ACVR1	0.032	2.819E-02
ENSG00000280347	AC000123.3	0.032	2.819E-02
ENSG00000184903	IMMP2L	0.052	2.823E-02
ENSG00000187676	B3GLCT	-0.033	2.825E-02
ENSG00000172046	USP19	-0.025	2.828E-02
ENSG00000160299	PCNT	0.043	2.828E-02
ENSG00000159352	PSMD4	0.024	2.829E-02
ENSG00000198917	SPOUT1	-0.043	2.834E-02
ENSG00000231500	RPS18	0.061	2.835E-02
ENSG00000099377	HSD3B7	0.082	2.847E-02
ENSG00000101310	SEC23B	-0.020	2.853E-02
ENSG00000285816	AP000944.5	-0.051	2.855E-02
ENSG00000060140	STYK1	0.090	2.855E-02
ENSG00000131849	ZNF132	-0.047	2.856E-02
ENSG00000215424	MCM3AP-AS1	0.040	2.856E-02
ENSG00000168792	ABHD15	-0.025	2.878E-02
ENSG00000114779	ABHD14B	-0.030	2.884E-02
ENSG00000026950	BTN3A1	-0.028	2.884E-02
ENSG00000213397	HAUS7	-0.034	2.892E-02
ENSG00000113749	HRH2	0.053	2.892E-02
ENSG00000198502	HLA-DRB5	-0.083	2.892E-02
ENSG00000172113	NME6	-0.021	2.895E-02
ENSG00000047621	C12orf4	0.035	2.900E-02
ENSG00000204592	HLA-E	-0.028	2.900E-02
ENSG00000153113	CAST	0.022	2.900E-02
ENSG00000250189	AC097504.1	0.106	2.907E-02
ENSG00000123815	COQ8B	-0.026	2.907E-02
ENSG00000133059	DSTYK	-0.016	2.908E-02
ENSG00000183628	DGCR6	-0.083	2.913E-02
ENSG00000131652	THOC6	-0.029	2.914E-02
ENSG00000229647	MYOSLID	0.113	2.921E-02
ENSG00000173442	EHBP1L1	0.031	2.921E-02
ENSG00000163597	SNHG16	-0.022	2.921E-02
ENSG00000166507	NDST2	0.042	2.926E-02
ENSG00000105856	HBP1	-0.024	2.926E-02
ENSG00000179818	PCBP1-AS1	0.045	2.929E-02
ENSG00000157106	SMG1	0.026	2.929E-02
ENSG00000204219	TCEA3	-0.065	2.932E-02
ENSG00000166343	MSS51	0.033	2.938E-02

ENSG00000167996	FTH1	0.044	2.938E-02
ENSG00000169372	CRADD	0.030	2.954E-02
ENSG00000130803	ZNF317	-0.017	2.967E-02
ENSG00000206199	ANKUB1	-0.085	2.983E-02
ENSG00000140718	FTO	-0.025	2.989E-02
ENSG00000107175	CREB3	-0.025	2.999E-02
ENSG00000064703	DDX20	-0.023	2.999E-02
ENSG00000197782	ZNF780A	-0.022	3.000E-02
ENSG00000109654	TRIM2	0.055	3.005E-02
ENSG00000088766	CRLS1	0.033	3.006E-02
ENSG00000276545	PCDHGB9P	0.112	3.006E-02
ENSG00000106560	GIMAP2	0.041	3.006E-02
ENSG00000122705	CLTA	-0.022	3.006E-02
ENSG00000203737	GPR52	0.060	3.009E-02
ENSG00000135077	HAVCR2	-0.034	3.016E-02
ENSG00000088826	SMOX	0.079	3.030E-02
ENSG00000108219	TSPAN14	0.025	3.030E-02
ENSG00000200354	SNORA71D	0.081	3.030E-02
ENSG00000136888	ATP6V1G1	0.035	3.031E-02
ENSG00000213625	LEPROT	0.034	3.031E-02
ENSG00000179091	CYC1	-0.029	3.031E-02
ENSG00000181350	LRRC75A	0.051	3.031E-02
ENSG00000164211	STARD4	0.038	3.032E-02
ENSG00000156453	PCDH1	0.085	3.037E-02
ENSG00000175768	TOMM5	0.048	3.043E-02
ENSG00000136450	SRSF1	-0.014	3.048E-02
ENSG00000178209	PLEC	0.033	3.054E-02
ENSG00000073578	SDHA	-0.020	3.057E-02
ENSG00000174175	SELP	0.071	3.057E-02
ENSG00000154736	ADAMTS5	-0.070	3.061E-02
ENSG00000151491	EPS8	0.086	3.068E-02
ENSG00000148218	ALAD	0.030	3.069E-02
ENSG00000211803	TRAV23DV6	-0.078	3.073E-02
ENSG00000162065	TBC1D24	0.044	3.077E-02
ENSG00000137478	FCHSD2	0.044	3.077E-02
ENSG00000101220	C20orf27	-0.044	3.079E-02
ENSG00000268163	AC004076.1	0.139	3.079E-02
ENSG00000228097	MTATP6P11	0.072	3.079E-02
ENSG00000200795	RNU4-1	0.094	3.082E-02
ENSG00000134250	NOTCH2	0.035	3.082E-02
ENSG00000183474	GTF2H2C	0.036	3.092E-02
ENSG00000197822	OCLN	0.089	3.109E-02
ENSG00000122678	POLM	-0.035	3.123E-02
ENSG00000104894	CD37	-0.026	3.128E-02
ENSG00000077514	POLD3	-0.028	3.138E-02
ENSG00000284431	AL022238.3	-0.138	3.139E-02
ENSG00000175305	CCNE2	0.087	3.139E-02

ENSG00000140688	RUSF1	-0.037	3.157E-02
ENSG00000076650	GPATCH1	-0.028	3.176E-02
ENSG00000171813	PWWP2B	-0.033	3.187E-02
ENSG00000119396	RAB14	0.018	3.194E-02
ENSG00000167703	SLC43A2	-0.042	3.195E-02
ENSG00000279814	AC010997.6	0.099	3.195E-02
ENSG00000286481	AC011246.1	-0.124	3.211E-02
ENSG00000154027	AK5	-0.079	3.212E-02
ENSG00000169583	CLIC3	-0.085	3.215E-02
ENSG00000187231	SESTD1	0.044	3.215E-02
ENSG00000241157	RPL32P32	0.046	3.215E-02
ENSG00000112695	COX7A2	0.046	3.215E-02
ENSG00000151743	AMN1	0.033	3.216E-02
ENSG00000229809	ZNF688	-0.033	3.216E-02
ENSG00000109103	UNC119	-0.029	3.216E-02
ENSG00000147202	DIAPH2	0.021	3.221E-02
ENSG00000231752	EMBP1	0.046	3.221E-02
ENSG00000002745	WNT16	-0.117	3.229E-02
ENSG00000137513	NARS2	-0.038	3.230E-02
ENSG00000197019	SERTAD1	-0.033	3.234E-02
ENSG00000185650	ZFP36L1	0.042	3.244E-02
ENSG00000108784	NAGLU	-0.036	3.249E-02
ENSG00000125944	HNRNPR	-0.022	3.252E-02
ENSG00000196646	ZNF136	-0.023	3.256E-02
ENSG00000165280	VCP	-0.024	3.257E-02
ENSG00000067601	PMS2P4	-0.050	3.265E-02
ENSG00000070269	TMEM260	0.024	3.271E-02
ENSG00000183386	FHL3	-0.056	3.272E-02
ENSG00000140374	ETFA	0.024	3.272E-02
ENSG00000113318	MSH3	0.027	3.272E-02
ENSG00000173041	ZNF680	0.037	3.277E-02
ENSG00000104343	UBE2W	0.030	3.287E-02
ENSG00000248769	AC139495.1	0.187	3.287E-02
ENSG00000213096	ZNF254	0.036	3.287E-02
ENSG00000213281	NRAS	0.021	3.290E-02
ENSG00000234771	SLC25A25-AS1	0.051	3.295E-02
ENSG00000267519	MIR23AHG	-0.041	3.297E-02
ENSG00000117143	UAP1	-0.038	3.297E-02
ENSG00000198728	LDB1	-0.016	3.306E-02
ENSG00000240403	KIR3DL2	-0.106	3.306E-02
ENSG00000234127	TRIM26	-0.023	3.307E-02
ENSG00000166024	R3HCC1L	-0.017	3.311E-02
ENSG00000196411	EPHB4	-0.065	3.315E-02
ENSG00000284906	AC091057.5	0.133	3.317E-02
ENSG00000124333	VAMP7	0.029	3.320E-02
ENSG00000177981	ASB8	-0.019	3.322E-02
ENSG00000121671	CRY2	-0.025	3.322E-02

ENSG00000129235	TXNDC17	0.047	3.324E-02
ENSG00000078808	SDF4	-0.026	3.328E-02
ENSG00000211650	IGLV5-45	-0.118	3.329E-02
ENSG00000097033	SH3GLB1	0.031	3.333E-02
ENSG00000155729	KCTD18	-0.018	3.333E-02
ENSG00000114923	SLC4A3	-0.113	3.342E-02
ENSG00000137880	GCHFR	-0.046	3.344E-02
ENSG00000266907	AC006116.1	-0.088	3.344E-02
ENSG00000127951	FGL2	-0.036	3.350E-02
ENSG00000251791	SCARNA6	0.074	3.352E-02
ENSG00000172531	PPP1CA	-0.023	3.352E-02
ENSG00000147536	GINS4	-0.079	3.352E-02
ENSG00000163875	MEAF6	-0.020	3.354E-02
ENSG00000180346	TIGD2	-0.039	3.355E-02
ENSG00000143149	ALDH9A1	-0.022	3.355E-02
ENSG00000113638	TTC33	0.037	3.355E-02
ENSG00000171421	MRPL36	0.040	3.362E-02
ENSG00000212232	SNORD17	0.088	3.365E-02
ENSG00000227671	ZNF731P	0.021	3.365E-02
ENSG00000133703	KRAS	0.021	3.371E-02
ENSG00000169398	PTK2	0.048	3.377E-02
ENSG00000131748	STARD3	-0.026	3.377E-02
ENSG00000085871	MGST2	-0.040	3.377E-02
ENSG00000284292	AC004922.1	-0.125	3.378E-02
ENSG00000176108	CHMP6	-0.027	3.389E-02
ENSG00000139675	HNRNPA1L2	-0.036	3.391E-02
ENSG00000000457	SCYL3	-0.016	3.393E-02
ENSG00000175764	TTLL11	0.044	3.393E-02
ENSG00000198695	MT-ND6	-0.123	3.393E-02
ENSG00000234424	AL353743.4	0.095	3.393E-02
ENSG00000122203	KIAA1191	0.026	3.404E-02
ENSG00000097046	CDC7	0.043	3.412E-02
ENSG00000173930	SLCO4C1	0.040	3.412E-02
ENSG00000156504	FAM122B	0.033	3.417E-02
ENSG00000100360	IFT27	-0.029	3.417E-02
ENSG00000128059	PPAT	-0.032	3.419E-02
ENSG00000204822	MRPL53	0.036	3.423E-02
ENSG00000125817	CENPB	-0.030	3.424E-02
ENSG00000164002	EXO5	-0.036	3.443E-02
ENSG00000119669	IRF2BPL	-0.037	3.443E-02
ENSG00000183011	NAA38	0.045	3.446E-02
ENSG00000113407	TARS1	0.026	3.446E-02
ENSG00000138175	ARL3	0.032	3.446E-02
ENSG00000149115	TNKS1BP1	-0.067	3.453E-02
ENSG00000238917	SNORD10	0.069	3.454E-02
ENSG00000162076	FLYWCH2	-0.043	3.458E-02
ENSG00000163166	IWS1	-0.019	3.459E-02

ENSG00000211668	IGLV2-11	-0.089	3.459E-02
ENSG00000178502	KLHL11	-0.018	3.460E-02
ENSG00000142949	PTPRF	0.120	3.460E-02
ENSG00000163900	TMEM41A	-0.024	3.461E-02
ENSG00000227200	AL162724.1	0.069	3.463E-02
ENSG00000119318	RAD23B	0.025	3.463E-02
ENSG00000179604	CDC42EP4	-0.056	3.463E-02
ENSG00000178445	GLDC	-0.137	3.469E-02
ENSG00000131781	FMO5	-0.032	3.475E-02
ENSG00000162959	MEMO1	0.020	3.475E-02
ENSG00000148341	SH3GLB2	0.036	3.475E-02
ENSG00000197903	H2BC12	-0.031	3.475E-02
ENSG00000255987	TOMM20P2	0.037	3.475E-02
ENSG00000038219	BOD1L1	-0.028	3.481E-02
ENSG00000137692	DCUN1D5	0.048	3.497E-02
ENSG00000079246	XRCC5	-0.016	3.497E-02
ENSG00000115271	GCA	0.047	3.498E-02
ENSG00000138495	COX17	0.032	3.502E-02
ENSG00000198795	ZNF521	-0.122	3.503E-02
ENSG00000197653	DNAH10	0.116	3.506E-02
ENSG00000231682	LINC01891	-0.071	3.516E-02
ENSG00000169592	INO80E	-0.027	3.517E-02
ENSG00000185475	TMEM179B	-0.025	3.520E-02
ENSG00000003756	RBM5	-0.014	3.522E-02
ENSG00000264538	SUZ12P1	0.027	3.522E-02
ENSG00000012822	CALCOCO1	-0.022	3.527E-02
ENSG00000278771	RN7SL3	0.067	3.530E-02
ENSG00000049089	COL9A2	-0.064	3.549E-02
ENSG00000105939	ZC3HAV1	0.025	3.549E-02
ENSG00000187987	ZSCAN23	-0.088	3.561E-02
ENSG00000113575	PPP2CA	-0.020	3.572E-02
ENSG00000166685	COG1	-0.023	3.572E-02
ENSG00000167377	ZNF23	0.049	3.572E-02
ENSG00000155008	APOOL	0.031	3.576E-02
ENSG00000163687	DNASE1L3	-0.102	3.597E-02
ENSG00000136717	BIN1	-0.032	3.597E-02
ENSG00000213563	C8orf82	-0.045	3.600E-02
ENSG00000165795	NDRG2	-0.046	3.601E-02
ENSG00000143756	FBXO28	-0.020	3.603E-02
ENSG00000163636	PSMD6	-0.015	3.604E-02
ENSG00000060762	MPC1	-0.026	3.607E-02
ENSG00000206811	SNORA10	0.112	3.610E-02
ENSG00000187699	C2orf88	0.066	3.631E-02
ENSG00000087269	NOP14	-0.021	3.640E-02
ENSG00000103035	PSMD7	-0.018	3.642E-02
ENSG00000099910	KLHL22	-0.023	3.656E-02
ENSG00000106785	TRIM14	0.037	3.667E-02

ENSG00000127483	HP1BP3	0.018	3.689E-02
ENSG00000166326	TRIM44	-0.029	3.693E-02
ENSG00000279098	AC097460.2	0.093	3.698E-02
ENSG00000156675	RAB11FIP1	-0.038	3.709E-02
ENSG00000165125	TRPV6	0.151	3.714E-02
ENSG00000066827	ZFAT	-0.028	3.725E-02
ENSG00000143167	GPA33	-0.053	3.725E-02
ENSG00000124406	ATP8A1	-0.025	3.725E-02
ENSG00000259856	RAB43P1	-0.204	3.728E-02
ENSG00000153187	HNRNPU	-0.016	3.728E-02
ENSG00000222078	RN7SKP110	0.079	3.728E-02
ENSG00000243772	KIR2DL3	-0.108	3.736E-02
ENSG00000165046	LETM2	-0.053	3.738E-02
ENSG00000225568	AC093155.1	0.100	3.738E-02
ENSG00000130584	ZBTB46	-0.078	3.739E-02
ENSG00000109065	NAT9	-0.027	3.746E-02
ENSG00000161904	LEMD2	-0.015	3.747E-02
ENSG00000286330	AL353660.1	0.060	3.752E-02
ENSG00000026559	KCNG1	0.115	3.753E-02
ENSG00000196072	BLOC1S2	0.045	3.753E-02
ENSG00000102383	ZDHHC15	-0.110	3.754E-02
ENSG00000163735	CXCL5	0.088	3.756E-02
ENSG00000130755	GMFG	0.039	3.762E-02
ENSG00000160703	NLRX1	-0.041	3.772E-02
ENSG00000163960	UBXN7	0.022	3.779E-02
ENSG00000254986	DPP3	-0.037	3.785E-02
ENSG00000154016	GRAP	-0.038	3.785E-02
ENSG00000162946	DISC1	0.045	3.790E-02
ENSG00000130764	LRRC47	-0.030	3.790E-02
ENSG00000285589	AC010422.8	0.036	3.791E-02
ENSG00000286185	AC242842.3	0.059	3.791E-02
ENSG00000185896	LAMP1	-0.029	3.792E-02
ENSG00000179627	ZBTB42	-0.045	3.796E-02
ENSG00000240498	CDKN2B-AS1	0.040	3.818E-02
ENSG00000213588	ZBTB9	-0.033	3.826E-02
ENSG00000116096	SPR	-0.081	3.826E-02
ENSG00000262097	LINC02185	0.100	3.829E-02
ENSG00000121579	NAA50	-0.019	3.835E-02
ENSG00000168291	PDHB	-0.020	3.835E-02
ENSG00000101079	NDRG3	-0.020	3.839E-02
ENSG00000254911	SCARNA9	0.042	3.843E-02
ENSG00000283994	AC092652.2	0.043	3.849E-02
ENSG00000143543	JTB	0.025	3.849E-02
ENSG00000187510	PLEKHG7	-0.100	3.852E-02
ENSG00000105011	ASF1B	-0.055	3.870E-02
ENSG00000251129	LINC02506	0.184	3.870E-02
ENSG00000103018	CY5B	-0.020	3.871E-02

ENSG00000135373	EHF	-0.112	3.873E-02
ENSG00000130175	PRKCSH	-0.023	3.877E-02
ENSG00000184428	TOP1MT	-0.043	3.891E-02
ENSG00000275143	SCARNA16	0.106	3.894E-02
ENSG00000021355	SERPINB1	0.030	3.898E-02
ENSG00000022277	RTF2	-0.026	3.898E-02
ENSG00000285006	AC005280.3	0.067	3.899E-02
ENSG00000154556	SORBS2	-0.159	3.902E-02
ENSG00000172053	QARS1	-0.025	3.904E-02
ENSG00000137161	CNPY3	-0.025	3.906E-02
ENSG00000141030	COPS3	0.029	3.911E-02
ENSG00000183283	DAZAP2	-0.028	3.911E-02
ENSG00000111737	RAB35	-0.025	3.915E-02
ENSG00000251682	AC122718.2	0.050	3.915E-02
ENSG00000199523	RNA5SP226	0.129	3.929E-02
ENSG00000258465	AL139011.2	0.172	3.930E-02
ENSG00000241468	ATP5MF	0.033	3.930E-02
ENSG00000141002	TCF25	-0.021	3.934E-02
ENSG00000211795	TRAV8-6	-0.055	3.935E-02
ENSG00000183696	UPP1	0.026	3.952E-02
ENSG00000125743	SNRPD2	0.052	3.966E-02
ENSG00000071553	ATP6AP1	-0.027	3.966E-02
ENSG00000163933	RFT1	-0.021	3.978E-02
ENSG00000127955	GNAI1	-0.084	3.997E-02
ENSG00000125498	KIR2DL1	-0.114	3.997E-02
ENSG00000156875	MFS14A	-0.019	4.001E-02
ENSG00000250490	LINC02145	0.124	4.004E-02
ENSG00000127022	CANX	-0.020	4.009E-02
ENSG00000151490	PTPRO	0.042	4.009E-02
ENSG00000141867	BRD4	0.041	4.010E-02
ENSG00000239899	RN7SL674P	0.059	4.014E-02
ENSG00000059573	ALDH18A1	-0.034	4.017E-02
ENSG00000130827	PLXNA3	0.090	4.029E-02
ENSG00000136451	VEZF1	-0.015	4.031E-02
ENSG00000170293	CMTM8	0.082	4.033E-02
ENSG00000160752	FDPS	-0.018	4.035E-02
ENSG00000105519	CAPS	-0.035	4.035E-02
ENSG00000170604	IRF2BP1	-0.031	4.035E-02
ENSG00000169246	NPIP3	0.057	4.040E-02
ENSG00000128607	KLHDC10	0.020	4.041E-02
ENSG00000108946	PRKAR1A	-0.027	4.044E-02
ENSG00000082068	WDR70	-0.028	4.054E-02
ENSG00000139433	GLTP	-0.021	4.054E-02
ENSG00000136527	TRA2B	-0.017	4.054E-02
ENSG00000277734	TRAC	-0.037	4.060E-02
ENSG00000113583	C5orf15	-0.021	4.067E-02
ENSG00000198791	CNOT7	-0.019	4.068E-02

ENSG00000154359	LONRF1	-0.030	4.068E-02
ENSG00000137166	FOXP4	0.125	4.069E-02
ENSG00000224025	AL353616.1	0.105	4.071E-02
ENSG00000230438	SERPINB9P1	0.042	4.072E-02
ENSG00000163877	SNIP1	-0.023	4.072E-02
ENSG00000175573	C11orf68	-0.028	4.081E-02
ENSG00000213842	SUGT1P2	-0.052	4.092E-02
ENSG00000272645	GTF2IP20	0.051	4.106E-02
ENSG00000116962	NID1	0.069	4.111E-02
ENSG00000073921	PICALM	0.029	4.116E-02
ENSG00000120129	DUSP1	-0.046	4.119E-02
ENSG00000158089	GALNT14	0.084	4.122E-02
ENSG00000236021	AL591043.2	0.072	4.129E-02
ENSG00000234473	ZNF101P2	0.058	4.131E-02
ENSG00000264235	AP005329.1	0.076	4.144E-02
ENSG00000107371	EXOSC3	-0.024	4.144E-02
ENSG00000111667	USP5	-0.034	4.145E-02
ENSG00000165457	FOLR2	-0.060	4.145E-02
ENSG00000213903	LTB4R	-0.043	4.146E-02
ENSG00000186272	ZNF17	-0.030	4.148E-02
ENSG00000226057	PHF2P2	0.127	4.155E-02
ENSG00000240047	RPS3AP32	0.107	4.165E-02
ENSG00000273669	AC015819.1	-0.040	4.172E-02
ENSG00000149257	SERPINH1	-0.044	4.178E-02
ENSG00000140350	ANP32A	-0.019	4.182E-02
ENSG00000221676	RNU6ATAC	0.114	4.188E-02
ENSG00000154920	EME1	-0.091	4.190E-02
ENSG00000121858	TNFSF10	0.037	4.192E-02
ENSG00000163466	ARPC2	0.019	4.193E-02
ENSG00000079335	CDC14A	0.026	4.193E-02
ENSG00000107829	FBXW4	0.027	4.194E-02
ENSG00000137145	DENND4C	-0.026	4.195E-02
ENSG00000169972	PUSL1	-0.041	4.196E-02
ENSG00000231233	CFAP58-DT	0.070	4.213E-02
ENSG00000099958	DERL3	-0.105	4.213E-02
ENSG00000197586	ENTPD6	-0.024	4.217E-02
ENSG00000090889	KIF4A	0.068	4.217E-02
ENSG00000169871	TRIM56	-0.022	4.239E-02
ENSG00000135363	LMO2	0.033	4.241E-02
ENSG00000071655	MBD3	-0.031	4.241E-02
ENSG00000162910	MRPL55	-0.034	4.241E-02
ENSG00000160075	SSU72	-0.015	4.241E-02
ENSG00000144036	EXOC6B	0.030	4.246E-02
ENSG00000154814	OXNAD1	-0.034	4.246E-02
ENSG00000213339	QTRT1	-0.038	4.246E-02
ENSG00000183484	GPR132	-0.020	4.246E-02
ENSG00000103245	CIAO3	-0.032	4.247E-02

ENSG00000255569	TRAV1-1	-0.090	4.247E-02
ENSG00000143502	SUSD4	0.081	4.253E-02
ENSG00000196787	H2AC11	-0.037	4.253E-02
ENSG00000264346	SNORA77B	0.109	4.253E-02
ENSG00000148248	SURF4	-0.017	4.254E-02
ENSG00000109270	LAMTOR3	0.034	4.255E-02
ENSG00000231875	AL359885.1	0.059	4.257E-02
ENSG00000172273	HINFP	0.026	4.257E-02
ENSG00000273820	USP27X	-0.031	4.257E-02
ENSG00000106070	GRB10	0.070	4.257E-02
ENSG00000165675	ENOX2	-0.024	4.268E-02
ENSG00000286098	AC008770.4	-0.147	4.290E-02
ENSG00000156697	UTP14A	-0.026	4.295E-02
ENSG00000107902	LHPP	0.051	4.295E-02
ENSG00000198756	COLGALT2	-0.084	4.301E-02
ENSG00000168806	LCMT2	-0.033	4.303E-02
ENSG00000197976	AKAP17A	-0.018	4.308E-02
ENSG00000276997	AL513314.2	0.050	4.308E-02
ENSG00000228327	AL669831.1	0.057	4.313E-02
ENSG00000077348	EXOSC5	-0.039	4.313E-02
ENSG00000236017	ASMTL-AS1	0.097	4.322E-02
ENSG00000167633	KIR3DL1	-0.119	4.324E-02
ENSG00000185158	LRRC37B	0.030	4.328E-02
ENSG00000198794	SCAMP5	-0.123	4.328E-02
ENSG00000068024	HDAC4	0.039	4.328E-02
ENSG00000163904	SEN2P2	-0.025	4.339E-02
ENSG00000121552	CSTA	0.059	4.340E-02
ENSG00000124356	STAMBP	-0.020	4.356E-02
ENSG00000279159	AC003681.1	0.080	4.356E-02
ENSG00000111481	COPZ1	0.024	4.373E-02
ENSG00000250479	CHCHD10	-0.038	4.373E-02
ENSG00000249859	PVT1	0.040	4.389E-02
ENSG00000141349	G6PC3	-0.038	4.393E-02
ENSG00000156463	SH3RF2	0.142	4.399E-02
ENSG00000118564	FBXL5	0.035	4.424E-02
ENSG00000172939	OXS1R1	0.021	4.431E-02
ENSG00000117751	PPP1R8	-0.021	4.435E-02
ENSG00000166126	AMN	-0.095	4.435E-02
ENSG00000150990	DHX37	-0.030	4.437E-02
ENSG00000216937	CCDC7	0.047	4.437E-02
ENSG00000279349	AC092692.1	0.050	4.438E-02
ENSG00000133997	MED6	-0.017	4.438E-02
ENSG00000241755	IGKV1-9	-0.104	4.442E-02
ENSG00000243896	OR2A7	0.132	4.457E-02
ENSG00000113648	MACROH2A1	-0.021	4.464E-02
ENSG00000100263	RHBDD3	-0.040	4.474E-02
ENSG00000103202	NME4	0.047	4.474E-02

ENSG00000116898	MRPS15	0.028	4.484E-02
ENSG00000179041	RRS1	-0.030	4.484E-02
ENSG00000254887	AC010247.1	0.047	4.492E-02
ENSG00000173928	SWSAP1	-0.043	4.492E-02
ENSG00000105968	H2AZ2	-0.016	4.495E-02
ENSG00000167874	TMEM88	0.088	4.496E-02
ENSG00000054356	PTPRN	0.130	4.496E-02
ENSG00000121892	PDS5A	0.019	4.500E-02
ENSG00000171204	TMEM126B	0.039	4.501E-02
ENSG00000207233	SNORA37	0.073	4.501E-02
ENSG00000050165	DKK3	-0.120	4.507E-02
ENSG00000148835	TAF5	-0.024	4.507E-02
ENSG00000169403	PTAFR	-0.040	4.507E-02
ENSG00000157600	TMEM164	-0.050	4.509E-02
ENSG00000131966	ACTR10	0.026	4.526E-02
ENSG00000069329	VPS35	-0.020	4.529E-02
ENSG00000065970	FOXJ2	0.037	4.537E-02
ENSG00000132205	EMILIN2	0.031	4.544E-02
ENSG00000283122	HYMAI	0.075	4.544E-02
ENSG00000006282	SPATA20	-0.067	4.552E-02
ENSG00000155093	PTPRN2	-0.056	4.564E-02
ENSG00000053372	MRTO4	-0.034	4.571E-02
ENSG00000176871	WSB2	0.025	4.574E-02
ENSG00000011422	PLAUR	-0.039	4.586E-02
ENSG00000112782	CLIC5	0.054	4.586E-02
ENSG00000121716	PILRB	-0.033	4.586E-02
ENSG00000183604	SMG1P5	0.055	4.588E-02
ENSG00000100353	EIF3D	-0.019	4.588E-02
ENSG00000084652	TXLNA	-0.018	4.591E-02
ENSG00000143552	NUP210L	0.120	4.591E-02
ENSG00000229191	AL358473.1	-0.070	4.599E-02
ENSG00000122591	FAM126A	0.025	4.619E-02
ENSG00000142961	MOB3C	0.021	4.623E-02
ENSG00000100347	SAMM50	-0.021	4.635E-02
ENSG00000105851	PIK3CG	-0.023	4.639E-02
ENSG00000174749	FAM241A	0.027	4.639E-02
ENSG00000015532	XYLT2	-0.026	4.645E-02
ENSG00000281530	AC004461.2	-0.040	4.646E-02
ENSG00000115073	ACTR1B	-0.020	4.646E-02
ENSG00000186187	ZNRF1	0.050	4.646E-02
ENSG00000121417	ZNF211	-0.022	4.646E-02
ENSG00000225930	LINC02249	0.142	4.648E-02
ENSG00000240864	IGKV1-16	-0.096	4.648E-02
ENSG00000242175	RN7SL127P	0.067	4.649E-02
ENSG00000071794	HLTF	-0.033	4.658E-02
ENSG00000198911	SREBF2	0.041	4.658E-02
ENSG00000134463	ECHDC3	-0.069	4.676E-02

ENSG00000114742	WDR48	-0.021	4.682E-02
ENSG00000079432	CIC	0.049	4.687E-02
ENSG00000136828	RALGPS1	0.035	4.697E-02
ENSG00000145945	FAM50B	-0.040	4.705E-02
ENSG00000154127	UBASH3B	0.036	4.705E-02
ENSG00000116478	HDAC1	-0.013	4.736E-02
ENSG00000113924	HGD	0.066	4.740E-02
ENSG00000258289	CHURC1	0.029	4.755E-02
ENSG00000227827	PKD1P2	-0.214	4.755E-02
ENSG00000139974	SLC38A6	0.032	4.771E-02
ENSG00000131788	PIAS3	0.038	4.772E-02
ENSG00000171115	GIMAP8	-0.023	4.795E-02
ENSG00000147894	C9orf72	0.030	4.795E-02
ENSG00000259687	LINC01220	0.085	4.798E-02
ENSG00000109819	PPARGC1A	-0.156	4.813E-02
ENSG00000111537	IFNG	0.092	4.818E-02
ENSG00000110048	OSBP	-0.015	4.819E-02
ENSG00000133321	PLAAT4	-0.034	4.834E-02
ENSG00000107938	EDRF1	-0.019	4.844E-02
ENSG00000167118	URM1	-0.033	4.862E-02
ENSG00000074966	TXK	-0.037	4.864E-02
ENSG00000141279	NPEPPS	0.037	4.871E-02
ENSG00000148634	HERC4	0.020	4.876E-02
ENSG00000182827	ACBD3	-0.019	4.877E-02
ENSG00000007264	MATK	-0.051	4.888E-02
ENSG00000280789	PAGR1	-0.017	4.888E-02
ENSG00000105677	TMEM147	-0.027	4.889E-02
ENSG00000134153	EMC7	-0.021	4.891E-02
ENSG00000103274	NUBP1	-0.024	4.893E-02
ENSG00000280543	ASAP1-IT2	0.083	4.906E-02
ENSG00000243156	MICAL3	0.042	4.908E-02
ENSG00000276023	DUSP14	-0.046	4.909E-02
ENSG00000007376	RPUSD1	-0.037	4.912E-02
ENSG00000171202	TMEM126A	0.051	4.916E-02
ENSG00000146592	CREB5	0.050	4.916E-02
ENSG00000206952	SNORA50A	0.136	4.919E-02
ENSG00000067048	DDX3Y	0.030	4.923E-02
ENSG00000048991	R3HDM1	0.035	4.923E-02
ENSG00000159307	SCUBE1	-0.159	4.923E-02
ENSG00000233154	LINC01762	0.069	4.923E-02
ENSG00000137500	CCDC90B	0.023	4.923E-02
ENSG00000165682	CLEC1B	0.079	4.923E-02
ENSG00000283199	C13orf46	0.067	4.946E-02
ENSG00000262877	AC110285.2	-0.069	4.951E-02
ENSG00000143889	HNRNPLL	0.024	4.951E-02
ENSG00000105705	SUGP1	-0.026	4.951E-02
ENSG00000111540	RAB5B	0.036	4.951E-02

ENSG00000182768	NGRN	0.024	4.951E-02
ENSG00000214753	HNRNPUL2	-0.021	4.954E-02
ENSG00000079931	MOXD1	-0.098	4.958E-02
ENSG00000197037	ZSCAN25	-0.026	4.958E-02
ENSG00000077097	TOP2B	-0.021	4.961E-02
ENSG00000168386	FILIP1L	-0.074	4.964E-02
ENSG00000212464	SNORA12	0.078	4.976E-02
ENSG00000131508	UBE2D2	0.025	4.976E-02
ENSG00000116133	DHCR24	0.058	4.976E-02
ENSG00000136048	DRAM1	0.041	4.976E-02
ENSG00000078589	P2RY10	-0.033	4.990E-02
ENSG00000236375	POU5F1P5	0.051	4.990E-02
ENSG00000184009	ACTG1	-0.021	4.994E-02
ENSG00000088325	TPX2	0.051	4.994E-02
ENSG00000000460	C1orf112	0.031	5.001E-02
ENSG00000177191	B3GNT8	-0.056	5.010E-02
ENSG00000168517	HEXIM2	-0.050	5.031E-02
ENSG00000169554	ZEB2	0.027	5.033E-02
ENSG00000253214	AC079209.1	0.071	5.036E-02
ENSG00000151881	TMEM267	0.038	5.036E-02
ENSG00000165934	CPSF2	0.023	5.038E-02
ENSG00000272047	GTF2H5	0.050	5.051E-02
ENSG00000197956	S100A6	0.028	5.053E-02
ENSG00000124659	TBCC	-0.020	5.058E-02
ENSG00000211938	IGHV3-7	-0.089	5.061E-02
ENSG00000130164	LDLR	0.058	5.073E-02
ENSG00000100417	PMM1	-0.028	5.087E-02
ENSG00000275714	H3C1	-0.044	5.087E-02
ENSG00000139620	KANSL2	-0.023	5.090E-02
ENSG00000166526	ZNF3	-0.021	5.092E-02
ENSG00000244265	SIAH2-AS1	0.129	5.095E-02
ENSG00000119203	CPSF3	-0.023	5.109E-02
ENSG00000065183	WDR3	-0.033	5.112E-02
ENSG00000243147	MRPL33	0.029	5.117E-02
ENSG00000139644	TMBIM6	-0.022	5.124E-02
ENSG00000126353	CCR7	-0.048	5.124E-02
ENSG00000123064	DDX54	-0.036	5.124E-02
ENSG00000101391	CDK5RAP1	-0.020	5.129E-02
ENSG00000158966	CACHD1	-0.095	5.129E-02
ENSG00000176390	CRLF3	-0.018	5.132E-02
ENSG00000148814	LRRC27	-0.042	5.132E-02
ENSG00000234719	NP1PB2	0.093	5.134E-02
ENSG00000237886	NALT1	-0.088	5.134E-02
ENSG00000110811	P3H3	-0.095	5.145E-02
ENSG00000167536	DHRS13	0.040	5.151E-02
ENSG00000175445	LPL	-0.128	5.154E-02
ENSG00000197912	SPG7	-0.018	5.154E-02

ENSG00000104497	SNX16	0.035	5.154E-02
ENSG00000134265	NAPG	0.020	5.154E-02
ENSG00000255031	AP002807.1	0.036	5.178E-02
ENSG00000154165	GPR15	0.075	5.181E-02
ENSG00000002822	MAD1L1	-0.031	5.181E-02
ENSG00000158555	GDPD5	0.057	5.181E-02
ENSG00000169679	BUB1	0.059	5.183E-02
ENSG00000211790	TRAV8-4	-0.057	5.188E-02
ENSG00000157823	AP3S2	0.023	5.189E-02
ENSG00000196074	SYCP2	0.058	5.196E-02
ENSG00000243449	C4orf48	-0.057	5.205E-02
ENSG00000138617	PARP16	-0.029	5.229E-02
ENSG00000126860	EVI2A	0.069	5.233E-02
ENSG00000023902	PLEKHO1	-0.021	5.233E-02
ENSG00000141526	SLC16A3	-0.039	5.233E-02
ENSG00000131043	AAR2	-0.019	5.233E-02
ENSG00000156127	BATF	0.038	5.252E-02
ENSG00000259205	PRKXP1	0.071	5.253E-02
ENSG00000197965	MPZL1	-0.051	5.260E-02
ENSG00000204427	ABHD16A	-0.020	5.260E-02
ENSG00000100554	ATP6V1D	0.023	5.260E-02
ENSG00000122140	MRPS2	-0.031	5.260E-02
ENSG00000248099	INSL3	0.082	5.260E-02
ENSG00000068097	HEATR6	-0.029	5.260E-02
ENSG00000286579	AC023483.1	0.097	5.260E-02
ENSG00000180644	PRF1	-0.052	5.272E-02
ENSG00000115947	ORC4	0.029	5.273E-02
ENSG00000204764	RANBP17	0.097	5.277E-02
ENSG00000176248	ANAPC2	-0.024	5.277E-02
ENSG00000095209	TMEM38B	-0.035	5.278E-02
ENSG00000197140	ADAM32	0.141	5.291E-02
ENSG00000197381	ADARB1	0.040	5.298E-02
ENSG00000174695	TMEM167A	0.030	5.309E-02
ENSG00000272886	DCP1A	-0.024	5.319E-02
ENSG00000108669	CYTH1	-0.011	5.319E-02
ENSG00000271270	TMCC1-AS1	-0.034	5.319E-02
ENSG00000167674	HDGFL2	-0.025	5.320E-02
ENSG00000167604	NFKBID	-0.028	5.320E-02
ENSG00000160688	FLAD1	-0.023	5.320E-02
ENSG00000176261	ZBTB8OS	0.034	5.321E-02
ENSG00000134489	HRH4	-0.074	5.321E-02
ENSG00000124562	SNRPC	-0.030	5.321E-02
ENSG00000243650	RN7SL834P	0.038	5.322E-02
ENSG00000101057	MYBL2	0.063	5.322E-02
ENSG00000170606	HSPA4	-0.024	5.322E-02
ENSG00000137267	TUBB2A	0.163	5.322E-02
ENSG00000164329	TENT2	0.018	5.324E-02

ENSG00000188554	NBR1	-0.019	5.324E-02
ENSG00000248455	LINC02217	0.116	5.327E-02
ENSG00000274925	ZKSCAN2-DT	-0.023	5.337E-02
ENSG00000122188	LAX1	-0.031	5.347E-02
ENSG00000141424	SLC39A6	-0.020	5.356E-02
ENSG00000288649	ACTL10	-0.103	5.356E-02
ENSG00000272455	MRPL20-DT	-0.034	5.361E-02
ENSG00000123836	PFKFB2	-0.046	5.366E-02
ENSG00000136807	CDK9	-0.021	5.366E-02
ENSG00000233387	IATPR	0.061	5.366E-02
ENSG00000152404	CWF19L2	-0.024	5.373E-02
ENSG00000156467	UQCRB	0.066	5.375E-02
ENSG00000139180	NDUFA9	-0.026	5.383E-02
ENSG00000119711	ALDH6A1	-0.028	5.385E-02
ENSG00000139636	LMBR1L	-0.020	5.385E-02
ENSG00000091732	ZC3HC1	-0.030	5.385E-02
ENSG00000163481	RNF25	-0.028	5.396E-02
ENSG00000123975	CKS2	0.066	5.401E-02
ENSG00000178028	DMAP1	-0.022	5.422E-02
ENSG00000107864	CPEB3	0.028	5.428E-02
ENSG00000139914	FITM1	0.062	5.429E-02
ENSG00000236345	SCAT8	-0.052	5.443E-02
ENSG00000140450	ARRDC4	0.047	5.451E-02
ENSG00000204228	HSD17B8	-0.044	5.452E-02
ENSG00000074071	MRPS34	-0.027	5.454E-02
ENSG00000149084	HSD17B12	-0.025	5.457E-02
ENSG00000121152	NCAPH	0.058	5.466E-02
ENSG00000154144	TBRG1	-0.015	5.471E-02
ENSG00000246596	AC139795.1	0.032	5.492E-02
ENSG00000124019	FAM124B	-0.050	5.497E-02
ENSG00000164199	ADGRV1	0.092	5.500E-02
ENSG00000164405	UQCRQ	0.053	5.507E-02
ENSG00000279344	AC007342.6	0.057	5.510E-02
ENSG00000126903	SLC10A3	-0.030	5.529E-02
ENSG00000070526	ST6GALNAC1	0.102	5.529E-02
ENSG00000114738	MAPKAPK3	-0.022	5.529E-02
ENSG00000267348	GEMIN7-AS1	0.080	5.537E-02
ENSG00000250130	GAPDHP43	0.032	5.538E-02
ENSG00000163156	SCNM1	0.026	5.541E-02
ENSG00000106153	CHCHD2	0.028	5.545E-02
ENSG00000102572	STK24	-0.019	5.568E-02
ENSG00000187796	CARD9	-0.043	5.568E-02
ENSG00000286715	AL589863.2	0.110	5.573E-02
ENSG00000281469	AC019226.1	0.053	5.573E-02
ENSG00000250687	NAIPP1	0.118	5.573E-02
ENSG00000166145	SPINT1	-0.042	5.573E-02
ENSG00000134243	SORT1	0.041	5.583E-02

ENSG00000265479	DTX2P1-UPK3BP1-F	0.043	5.583E-02
ENSG00000102781	KATNAL1	0.039	5.583E-02
ENSG00000070614	NDST1	-0.051	5.595E-02
ENSG00000029364	SLC39A9	-0.012	5.606E-02
ENSG00000278897	AC020951.1	-0.037	5.622E-02
ENSG00000100307	CBX7	-0.022	5.637E-02
ENSG00000123219	CENPK	0.082	5.639E-02
ENSG00000204370	SDHD	-0.018	5.642E-02
ENSG00000153395	LPCAT1	-0.024	5.649E-02
ENSG00000141293	SKAP1	0.034	5.650E-02
ENSG00000005022	SLC25A5	-0.020	5.655E-02
ENSG00000163249	CCNYL1	0.029	5.656E-02
ENSG00000105656	ELL	-0.033	5.664E-02
ENSG00000144130	NT5DC4	0.128	5.664E-02
ENSG00000199785	SNORA52	0.079	5.667E-02
ENSG00000177483	RBM44	0.056	5.670E-02
ENSG00000196227	FAM217B	-0.024	5.670E-02
ENSG00000167658	EEF2	-0.023	5.681E-02
ENSG00000076003	MCM6	-0.026	5.681E-02
ENSG00000159259	CHAF1B	0.059	5.681E-02
ENSG00000139131	YARS2	-0.035	5.681E-02
ENSG00000069998	HDHD5	-0.024	5.681E-02
ENSG00000183513	COA5	-0.020	5.681E-02
ENSG00000169241	SLC50A1	0.025	5.681E-02
ENSG00000168237	GLYCTK	-0.024	5.691E-02
ENSG00000135482	ZC3H10	-0.023	5.691E-02
ENSG00000185627	PSMD13	-0.014	5.703E-02
ENSG00000101361	NOP56	-0.021	5.705E-02
ENSG00000134627	PIWIL4	0.045	5.716E-02
ENSG00000169826	CSGALNACT2	0.020	5.723E-02
ENSG00000111786	SRSF9	-0.013	5.732E-02
ENSG00000101997	CCDC22	-0.026	5.737E-02
ENSG00000152689	RASGRP3	0.049	5.737E-02
ENSG00000215154	AC141586.1	0.049	5.737E-02
ENSG00000148337	CIZ1	0.038	5.737E-02
ENSG00000143674	MAP3K21	0.043	5.737E-02
ENSG00000110583	NAA40	0.044	5.740E-02
ENSG00000141179	PCTP	0.045	5.740E-02
ENSG00000266967	AARSD1	-0.030	5.740E-02
ENSG00000120053	GOT1	-0.031	5.742E-02
ENSG00000286285	AL138778.1	0.052	5.742E-02
ENSG00000032742	IFT88	-0.033	5.742E-02
ENSG00000111011	RSRC2	-0.015	5.742E-02
ENSG00000198821	CD247	-0.031	5.742E-02
ENSG00000096401	CDC5L	-0.017	5.745E-02
ENSG00000211791	TRAV13-2	-0.058	5.746E-02
ENSG00000228393	LINC01004	0.038	5.746E-02

ENSG00000286817	AC105339.6	0.043	5.747E-02
ENSG00000227706	AL713998.1	0.087	5.747E-02
ENSG00000109184	DCUN1D4	0.031	5.747E-02
ENSG00000111269	CREBL2	0.019	5.751E-02
ENSG00000166845	C18orf54	0.039	5.754E-02
ENSG00000133657	ATP13A3	0.023	5.754E-02
ENSG00000287697	Z99127.3	-0.034	5.756E-02
ENSG00000235831	BHLHE40-AS1	0.049	5.756E-02
ENSG00000206341	HLA-H	-0.087	5.762E-02
ENSG00000279311	AC092999.1	0.089	5.762E-02
ENSG00000128973	CLN6	-0.033	5.772E-02
ENSG00000163902	RPN1	-0.020	5.772E-02
ENSG00000153094	BCL2L11	0.032	5.774E-02
ENSG00000254528	AP000757.1	-0.095	5.781E-02
ENSG00000108840	HDAC5	-0.033	5.797E-02
ENSG00000185950	IRS2	-0.042	5.801E-02
ENSG00000105750	ZNF85	0.039	5.801E-02
ENSG00000142444	TIMM29	-0.026	5.817E-02
ENSG00000110090	CPT1A	0.040	5.817E-02
ENSG00000206053	JPT2	-0.023	5.817E-02
ENSG00000174579	MSL2	-0.013	5.819E-02
ENSG00000176083	ZNF683	0.122	5.821E-02
ENSG00000203739	PRDX6-AS1	0.038	5.823E-02
ENSG00000182489	XKRX	-0.076	5.823E-02
ENSG00000197857	ZNF44	-0.023	5.827E-02
ENSG00000137760	ALKBH8	-0.028	5.828E-02
ENSG00000076356	PLXNA2	-0.068	5.832E-02
ENSG00000288061	AP000926.2	-0.054	5.833E-02
ENSG00000160271	RALGDS	0.031	5.834E-02
ENSG00000115286	NDUFS7	-0.036	5.835E-02
ENSG00000130340	SNX9	-0.025	5.838E-02
ENSG00000279166	AC009951.4	0.044	5.840E-02
ENSG00000135829	DHX9	-0.015	5.840E-02
ENSG00000165879	FRAT1	-0.035	5.840E-02
ENSG00000287317	AC016769.6	0.127	5.847E-02
ENSG00000169249	ZRSR2	-0.022	5.848E-02
ENSG00000219626	FAM228B	0.027	5.848E-02
ENSG00000162366	PDZK1IP1	0.079	5.848E-02
ENSG00000231566	LINC02595	0.093	5.851E-02
ENSG00000206560	ANKRD28	0.028	5.854E-02
ENSG00000166669	ATF7IP2	0.032	5.857E-02
ENSG00000099783	HNRNPM	-0.014	5.863E-02
ENSG00000274929	AL157813.1	0.038	5.863E-02
ENSG00000124788	ATXN1	0.035	5.863E-02
ENSG00000138231	DBR1	-0.022	5.863E-02
ENSG00000164587	RPS14	0.040	5.863E-02
ENSG00000177963	RIC8A	-0.024	5.863E-02

ENSG00000160284	SPATC1L	-0.098	5.863E-02
ENSG00000234616	JRK	-0.024	5.869E-02
ENSG00000120885	CLU	0.081	5.872E-02
ENSG00000170873	MTSS1	0.038	5.873E-02
ENSG00000120690	ELF1	-0.016	5.873E-02
ENSG00000244703	CD46P1	0.089	5.874E-02
ENSG00000106636	YKT6	-0.016	5.874E-02
ENSG00000276550	HERC2P2	0.041	5.880E-02
ENSG00000091164	TXNL1	0.021	5.884E-02
ENSG00000205189	ZBTB10	-0.030	5.895E-02
ENSG00000025293	PHF20	-0.018	5.899E-02
ENSG00000188986	NELFB	-0.021	5.900E-02
ENSG00000198216	CACNA1E	0.070	5.906E-02
ENSG00000228166	MTND1P11	0.098	5.916E-02
ENSG00000121060	TRIM25	0.038	5.923E-02
ENSG00000224707	E2F3-IT1	0.073	5.923E-02
ENSG00000155324	GRAMD2B	-0.052	5.925E-02
ENSG00000100628	ASB2	-0.062	5.927E-02
ENSG00000104866	PPP1R37	-0.041	5.928E-02
ENSG00000249471	ZNF324B	-0.031	5.937E-02
ENSG00000279148	AC126474.1	0.055	5.955E-02
ENSG00000255587	RAB44	-0.053	5.955E-02
ENSG00000183935	HTR7P1	-0.038	5.955E-02
ENSG00000164258	NDUFS4	0.046	5.955E-02
ENSG00000278970	HEIH	-0.025	5.981E-02
ENSG00000256043	CTSO	-0.022	5.988E-02
ENSG00000108604	SMARCD2	-0.020	5.996E-02
ENSG00000120662	MTRF1	0.034	6.008E-02
ENSG00000115514	TXNDC9	0.036	6.009E-02
ENSG00000147168	IL2RG	0.017	6.010E-02
ENSG00000143153	ATP1B1	-0.054	6.014E-02
ENSG00000153406	NMRAL1	-0.028	6.014E-02
ENSG00000130717	UCK1	-0.023	6.018E-02
ENSG00000087206	UIMC1	0.023	6.031E-02
ENSG00000166140	ZFYVE19	-0.030	6.044E-02
ENSG00000243806	RPL7P18	0.053	6.045E-02
ENSG00000179335	CLK3	0.021	6.046E-02
ENSG00000221909	FAM200A	-0.033	6.050E-02
ENSG00000120910	PPP3CC	0.029	6.051E-02
ENSG00000177606	JUN	-0.035	6.066E-02
ENSG00000101901	ALG13	0.025	6.082E-02
ENSG00000082293	COL19A1	0.084	6.083E-02
ENSG00000196387	ZNF140	-0.020	6.086E-02
ENSG00000143595	AQP10	0.093	6.088E-02
ENSG00000141524	TMC6	-0.025	6.095E-02
ENSG00000269404	SPIB	-0.058	6.096E-02
ENSG00000067560	RHOA	-0.023	6.096E-02

ENSG00000237988	OR2I1P	-0.131	6.109E-02
ENSG00000051596	THOC3	0.033	6.111E-02
ENSG00000235706	DICER1-AS1	0.054	6.117E-02
ENSG00000076924	XAB2	-0.025	6.118E-02
ENSG00000050628	PTGER3	-0.104	6.139E-02
ENSG00000124164	VAPB	0.023	6.143E-02
ENSG00000170345	FOS	-0.044	6.143E-02
ENSG00000169020	ATP5ME	0.044	6.152E-02
ENSG00000134371	CDC73	0.014	6.159E-02
ENSG00000253719	ATXN7L3B	-0.015	6.159E-02
ENSG00000237854	LINC00674	-0.048	6.159E-02
ENSG00000107796	ACTA2	0.069	6.159E-02
ENSG00000177548	RABEP2	-0.034	6.159E-02
ENSG00000102908	NFAT5	0.036	6.159E-02
ENSG00000172795	DCP2	0.023	6.165E-02
ENSG00000174851	YIF1A	-0.031	6.165E-02
ENSG00000068745	IP6K2	-0.014	6.165E-02
ENSG00000286268	AF196969.1	-0.098	6.169E-02
ENSG00000211644	IGLV1-51	-0.109	6.189E-02
ENSG00000200463	SNORD118	0.128	6.189E-02
ENSG00000120948	TARDBP	-0.014	6.189E-02
ENSG00000151176	PLBD2	0.044	6.189E-02
ENSG00000020181	ADGRA2	0.062	6.198E-02
ENSG00000076604	TRAF4	-0.047	6.198E-02
ENSG00000246705	H2AJ	0.046	6.198E-02
ENSG00000180353	HCLS1	-0.022	6.204E-02
ENSG00000196150	ZNF250	-0.036	6.204E-02
ENSG00000155287	SLC25A28	-0.019	6.212E-02
ENSG00000111846	GCNT2	0.037	6.212E-02
ENSG00000183648	NDUFB1	0.045	6.212E-02
ENSG00000144867	SRPRB	-0.030	6.212E-02
ENSG00000065154	OAT	0.024	6.216E-02
ENSG00000137124	ALDH1B1	-0.034	6.217E-02
ENSG00000158023	CFAP251	0.082	6.217E-02
ENSG00000120860	WASHC3	0.023	6.217E-02
ENSG00000134905	CARS2	-0.024	6.222E-02
ENSG00000063241	ISOC2	-0.045	6.222E-02
ENSG00000186166	CENATAC	-0.021	6.225E-02
ENSG00000072778	ACADVL	0.021	6.228E-02
ENSG00000205784	ARRDC5	-0.035	6.228E-02
ENSG00000143337	TOR1AIP1	-0.020	6.229E-02
ENSG00000197785	ATAD3A	-0.045	6.229E-02
ENSG00000203663	OR2L2	0.069	6.236E-02
ENSG00000281344	HELLPAR	0.034	6.236E-02
ENSG00000112624	BICRAL	0.028	6.236E-02
ENSG00000139572	GPR84	0.070	6.236E-02
ENSG00000086827	ZW10	-0.021	6.243E-02

ENSG00000164096	C4orf3	0.024	6.243E-02
ENSG00000168234	TTC39C	0.029	6.250E-02
ENSG00000279884	AC010894.4	0.047	6.250E-02
ENSG00000172183	ISG20	-0.034	6.250E-02
ENSG00000163931	TKT	-0.034	6.250E-02
ENSG00000261114	AC012181.1	-0.037	6.255E-02
ENSG00000184205	TSPYL2	-0.035	6.255E-02
ENSG00000188313	PLSCR1	0.049	6.268E-02
ENSG00000150433	TMEM218	-0.027	6.268E-02
ENSG00000196535	MYO18A	0.030	6.269E-02
ENSG00000100297	MCM5	-0.030	6.269E-02
ENSG00000187621	TCL6	0.069	6.269E-02
ENSG00000270629	NBPF14	0.029	6.269E-02
ENSG00000114391	RPL24	0.043	6.270E-02
ENSG00000103423	DNAJA3	-0.025	6.272E-02
ENSG00000186265	BTLA	0.039	6.272E-02
ENSG00000099204	ABLIM1	-0.031	6.272E-02
ENSG00000166523	CLEC4E	-0.051	6.272E-02
ENSG00000277075	H2AC8	-0.033	6.272E-02
ENSG00000117481	NSUN4	-0.024	6.272E-02
ENSG00000229899	AC084290.1	0.059	6.278E-02
ENSG00000226232	NPIP14P	0.121	6.278E-02
ENSG00000182541	LIMK2	0.042	6.279E-02
ENSG00000157734	SNX22	0.053	6.281E-02
ENSG00000100395	L3MBTL2	-0.022	6.281E-02
ENSG00000139505	MTMR6	-0.022	6.285E-02
ENSG00000267278	MAP3K14-AS1	-0.045	6.285E-02
ENSG00000244486	SCARF2	-0.091	6.287E-02
ENSG00000055130	CUL1	-0.019	6.290E-02
ENSG00000112232	KHDRBS2	0.071	6.305E-02
ENSG00000124541	RRP36	-0.016	6.305E-02
ENSG00000228172	AL020996.1	-0.072	6.305E-02
ENSG00000275367	AC092111.1	-0.060	6.305E-02
ENSG00000148719	DNAJB12	-0.022	6.305E-02
ENSG00000285669	AC026979.4	-0.033	6.305E-02
ENSG00000090447	TFAP4	-0.039	6.308E-02
ENSG00000144848	ATG3	0.023	6.308E-02
ENSG00000259418	AC091117.2	0.087	6.311E-02
ENSG00000275964	AL355001.2	-0.054	6.318E-02
ENSG00000112339	HBS1L	0.023	6.318E-02
ENSG00000182199	SHMT2	-0.026	6.318E-02
ENSG00000110079	MS4A4A	0.063	6.322E-02
ENSG00000105443	CYTH2	-0.022	6.338E-02
ENSG00000081237	PTPRC	0.018	6.339E-02
ENSG00000166432	ZMAT1	-0.027	6.339E-02
ENSG00000198932	GPRASP1	-0.036	6.339E-02
ENSG00000254703	SENCR	-0.079	6.341E-02

ENSG00000107897	ACBD5	-0.017	6.341E-02
ENSG00000211663	IGLV3-19	-0.080	6.341E-02
ENSG00000140987	ZSCAN32	-0.016	6.346E-02
ENSG00000213445	SIPA1	-0.028	6.354E-02
ENSG00000167461	RAB8A	-0.021	6.354E-02
ENSG00000102871	TRADD	-0.019	6.356E-02
ENSG00000118655	DCLRE1B	0.026	6.364E-02
ENSG00000091106	NLRC4	0.034	6.372E-02
ENSG00000017797	RALBP1	0.031	6.378E-02
ENSG00000089737	DDX24	-0.025	6.378E-02
ENSG00000205581	HMGN1	-0.022	6.385E-02
ENSG00000128512	DOCK4	0.061	6.397E-02
ENSG00000130997	POLN	0.126	6.398E-02
ENSG00000247271	ZBED5-AS1	0.026	6.398E-02
ENSG00000004478	FKBP4	0.029	6.400E-02
ENSG00000271533	Z83843.1	0.038	6.400E-02
ENSG00000213147	RPL23AP60	0.177	6.410E-02
ENSG00000250067	YJEFN3	0.100	6.410E-02
ENSG00000144724	PTPRG	-0.114	6.413E-02
ENSG00000260647	AC127537.1	-0.061	6.413E-02
ENSG00000231527	FAM27C	0.069	6.413E-02
ENSG00000137070	IL11RA	0.037	6.421E-02
ENSG00000287277	AL392086.3	0.041	6.432E-02
ENSG00000140471	LINS1	0.022	6.447E-02
ENSG00000165416	SUGT1	0.020	6.456E-02
ENSG00000067248	DHX29	0.021	6.466E-02
ENSG00000230772	VN1R108P	0.094	6.475E-02
ENSG00000172785	CBWD1	0.025	6.477E-02
ENSG00000130005	GAMT	-0.059	6.484E-02
ENSG00000273841	TAF9	0.032	6.488E-02
ENSG00000266371	AC079915.1	0.095	6.500E-02
ENSG00000168255	POLR2J3	0.053	6.500E-02
ENSG00000108443	RPS6KB1	0.016	6.503E-02
ENSG00000007237	GAS7	0.041	6.507E-02
ENSG00000238795	SCARNA12	0.052	6.510E-02
ENSG00000121933	TMIGD3	-0.095	6.512E-02
ENSG00000175600	SUGCT	-0.069	6.512E-02
ENSG00000173275	ZNF449	-0.023	6.512E-02
ENSG00000115594	IL1R1	0.070	6.512E-02
ENSG00000257411	AC034102.2	0.187	6.512E-02
ENSG00000240505	TNFRSF13B	-0.087	6.513E-02
ENSG00000256988	AC005833.2	0.113	6.523E-02
ENSG00000225528	Z82206.1	0.039	6.535E-02
ENSG00000183963	SMTN	-0.090	6.535E-02
ENSG00000104154	SLC30A4	0.033	6.538E-02
ENSG00000079999	KEAP1	-0.026	6.538E-02
ENSG00000213585	VDAC1	-0.019	6.547E-02

ENSG00000136270	TBRG4	-0.022	6.554E-02
ENSG00000206652	RNU1-1	0.077	6.554E-02
ENSG00000276953	TRBV12-4	-0.067	6.558E-02
ENSG00000083844	ZNF264	-0.016	6.558E-02
ENSG00000158517	NCF1	-0.040	6.569E-02
ENSG00000136603	SKIL	0.024	6.570E-02
ENSG00000054267	ARID4B	0.018	6.571E-02
ENSG00000123094	RASSF8	-0.115	6.576E-02
ENSG00000114098	ARMC8	0.017	6.576E-02
ENSG00000170485	NPAS2	-0.122	6.582E-02
ENSG00000163541	SUCLG1	-0.017	6.582E-02
ENSG00000182405	PGBD4	-0.032	6.587E-02
ENSG00000287306	AC016821.1	0.076	6.588E-02
ENSG00000135972	MRPS9	-0.026	6.588E-02
ENSG00000214706	IFRD2	0.034	6.594E-02
ENSG00000100994	PYGB	-0.028	6.594E-02
ENSG00000189306	RRP7A	-0.039	6.601E-02
ENSG00000067715	SYT1	-0.135	6.605E-02
ENSG00000073060	SCARB1	-0.052	6.605E-02
ENSG00000243414	TICAM2	0.056	6.611E-02
ENSG00000226758	DISC1-IT1	0.087	6.612E-02
ENSG00000116793	PHTF1	0.029	6.612E-02
ENSG00000134590	RTL8C	-0.044	6.630E-02
ENSG00000164512	ANKRD55	-0.054	6.633E-02
ENSG00000198890	PRMT6	-0.030	6.634E-02
ENSG00000101417	PXMP4	-0.036	6.643E-02
ENSG00000278299	TBC1D3C	-0.192	6.643E-02
ENSG00000173166	RAPH1	0.065	6.649E-02
ENSG00000133056	PIK3C2B	0.053	6.666E-02
ENSG00000229808	AL391825.1	0.039	6.681E-02
ENSG00000124193	SRSF6	-0.014	6.681E-02
ENSG00000259248	USP3-AS1	-0.057	6.681E-02
ENSG00000143033	MTF2	-0.017	6.681E-02
ENSG00000189060	H1-0	0.069	6.681E-02
ENSG00000285756	BX890604.1	0.056	6.681E-02
ENSG00000227825	SLC9A7P1	0.043	6.687E-02
ENSG00000148229	POLE3	-0.020	6.687E-02
ENSG00000249592	AC139887.2	-0.020	6.693E-02
ENSG00000140030	GPR65	0.027	6.693E-02
ENSG00000168874	ATOH8	-0.134	6.698E-02
ENSG00000286162	AL162253.2	0.059	6.698E-02
ENSG00000124177	CHD6	-0.023	6.701E-02
ENSG00000211747	TRBV20-1	-0.043	6.706E-02
ENSG00000123106	CCDC91	0.029	6.709E-02
ENSG00000140853	NLRC5	0.031	6.709E-02
ENSG00000217783	LDHAL6FP	0.073	6.709E-02
ENSG00000101444	AHCY	-0.025	6.717E-02

ENSG00000184207	PGP	-0.022	6.723E-02
ENSG00000183495	EP400	0.042	6.723E-02
ENSG00000072210	ALDH3A2	-0.022	6.733E-02
ENSG00000204536	CCHCR1	-0.035	6.748E-02
ENSG00000141582	CBX4	-0.024	6.750E-02
ENSG00000141040	ZNF287	-0.052	6.750E-02
ENSG00000177374	HIC1	-0.080	6.750E-02
ENSG00000138942	RNF185	-0.021	6.750E-02
ENSG00000163513	TGFBR2	-0.018	6.750E-02
ENSG00000119705	SLIRP	0.046	6.750E-02
ENSG00000100767	PAPLN	-0.086	6.750E-02
ENSG00000260267	AC026471.1	-0.024	6.750E-02
ENSG00000161036	LRWD1	-0.034	6.750E-02
ENSG00000275371	AC012645.4	-0.067	6.755E-02
ENSG00000102119	EMD	-0.025	6.758E-02
ENSG00000184349	EFNA5	0.126	6.761E-02
ENSG00000139160	ETFBKMT	0.049	6.764E-02
ENSG00000226498	RPSAP21	0.063	6.767E-02
ENSG00000171940	ZNF217	-0.020	6.769E-02
ENSG00000064545	TMEM161A	-0.053	6.770E-02
ENSG00000213782	DDX47	-0.019	6.771E-02
ENSG00000066455	GOLGA5	-0.016	6.771E-02
ENSG00000171649	ZIK1	-0.036	6.788E-02
ENSG00000115423	DNAH6	-0.079	6.788E-02
ENSG00000263126	AC040162.3	0.068	6.788E-02
ENSG00000285933	AP003498.2	0.099	6.795E-02
ENSG00000232229	LINC00865	-0.051	6.826E-02
ENSG00000109906	ZBTB16	-0.056	6.831E-02
ENSG00000132541	RIDA	0.059	6.837E-02
ENSG00000140830	TXNL4B	0.026	6.837E-02
ENSG00000272632	AC097504.2	0.085	6.837E-02
ENSG00000100095	SEZ6L	-0.080	6.837E-02
ENSG00000202354	RNY3	0.085	6.848E-02
ENSG00000182578	CSF1R	-0.036	6.860E-02
ENSG00000130921	C12orf65	-0.024	6.882E-02
ENSG00000100219	XBP1	-0.024	6.885E-02
ENSG00000005961	ITGA2B	0.088	6.893E-02
ENSG00000120800	UTP20	-0.031	6.893E-02
ENSG00000229833	PET100	0.041	6.893E-02
ENSG00000184990	SIVA1	-0.034	6.893E-02
ENSG00000118804	STBD1	0.049	6.893E-02
ENSG00000136158	SPRY2	-0.057	6.893E-02
ENSG00000113384	GOLPH3	-0.015	6.893E-02
ENSG00000233013	FAM157B	0.059	6.905E-02
ENSG00000260992	DOCK9-DT	-0.065	6.907E-02
ENSG00000237818	RPS3AP29	0.090	6.915E-02
ENSG00000278175	GLIDR	-0.050	6.919E-02

ENSG00000198551	ZNF627	-0.027	6.931E-02
ENSG00000124299	PEPD	-0.023	6.933E-02
ENSG00000043143	JADE2	-0.023	6.943E-02
ENSG00000102054	RBBP7	-0.019	6.943E-02
ENSG00000156206	CFAP161	0.089	6.943E-02
ENSG00000130856	ZNF236	0.032	6.966E-02
ENSG00000198814	GK	0.040	7.001E-02
ENSG00000100220	RTCB	-0.020	7.028E-02
ENSG00000259915	AC017071.1	0.075	7.028E-02
ENSG00000163219	ARHGAP25	-0.020	7.028E-02
ENSG00000264745	TTC39C-AS1	0.085	7.028E-02
ENSG00000137726	FXYD6	-0.063	7.028E-02
ENSG00000131408	NR1H2	-0.024	7.028E-02
ENSG00000080561	MID2	-0.052	7.032E-02
ENSG00000250303	LINC02762	0.043	7.047E-02
ENSG00000036530	CYP46A1	-0.113	7.055E-02
ENSG00000211782	TRAV8-1	-0.064	7.082E-02
ENSG00000113387	SUB1	0.041	7.085E-02
ENSG00000147789	ZNF7	-0.019	7.085E-02
ENSG00000114631	PODXL2	-0.064	7.098E-02
ENSG00000099821	POLRMT	-0.037	7.108E-02
ENSG00000213904	LIPE-AS1	-0.088	7.113E-02
ENSG00000135821	GLUL	0.047	7.113E-02
ENSG00000159733	ZFYVE28	0.039	7.113E-02
ENSG00000204345	CD300LD	-0.134	7.118E-02
ENSG00000166387	PPFIBP2	-0.037	7.118E-02
ENSG00000101773	RBBP8	0.037	7.119E-02
ENSG00000123989	CHPF	-0.071	7.119E-02
ENSG00000248483	POU5F2	0.045	7.120E-02
ENSG00000215374	FAM66B	-0.054	7.120E-02
ENSG00000276744	AC105137.2	-0.049	7.124E-02
ENSG00000162688	AGL	0.021	7.127E-02
ENSG00000263843	AC022211.2	-0.052	7.140E-02
ENSG00000279838	AL356273.3	-0.025	7.166E-02
ENSG00000139405	RITA1	-0.029	7.166E-02
ENSG00000268154	Metazoa_SRP	-0.073	7.166E-02
ENSG00000180530	NRIP1	-0.022	7.166E-02
ENSG00000187536	TPM3P7	0.066	7.179E-02
ENSG00000168883	USP39	-0.015	7.179E-02
ENSG00000101577	LPIN2	0.025	7.179E-02
ENSG00000255545	B3GAT1-DT	0.108	7.179E-02
ENSG00000100448	CTSG	0.122	7.187E-02
ENSG00000082701	GSK3B	0.028	7.187E-02
ENSG00000152454	ZNF256	-0.032	7.187E-02
ENSG00000147274	RBMX	-0.018	7.187E-02
ENSG00000146731	CCT6A	-0.023	7.191E-02
ENSG00000232021	LEF1-AS1	-0.062	7.196E-02

ENSG00000102710	SUPT20H	0.020	7.208E-02
ENSG00000197712	FAM114A1	0.063	7.208E-02
ENSG00000261308	FIGNL2	-0.068	7.217E-02
ENSG00000117360	PRPF3	-0.015	7.225E-02
ENSG00000279277	AC012020.1	0.029	7.234E-02
ENSG00000152672	CLEC4F	-0.145	7.238E-02
ENSG00000183784	DOCK8-AS1	0.047	7.245E-02
ENSG00000188107	EYS	-0.085	7.247E-02
ENSG00000189430	NCR1	-0.049	7.267E-02
ENSG00000116560	SFPQ	-0.013	7.281E-02
ENSG00000104679	R3HCC1	-0.026	7.296E-02
ENSG00000164985	PSIP1	-0.017	7.296E-02
ENSG00000165516	KLHDC2	0.022	7.296E-02
ENSG00000257218	GATC	-0.020	7.296E-02
ENSG00000288473	AL669830.1	0.168	7.296E-02
ENSG00000234997	AC016745.1	0.062	7.296E-02
ENSG00000279885	AP005060.1	0.076	7.296E-02
ENSG00000159176	CSRP1	-0.019	7.298E-02
ENSG00000227953	LINC01341	-0.078	7.321E-02
ENSG00000274180	NATD1	0.050	7.321E-02
ENSG00000160633	SAFB	-0.014	7.323E-02
ENSG00000186529	CYP4F3	-0.050	7.324E-02
ENSG00000140829	DHX38	-0.018	7.324E-02
ENSG00000165733	BMS1	-0.020	7.334E-02
ENSG00000248487	ABHD14A	-0.036	7.352E-02
ENSG00000125629	INSIG2	0.025	7.359E-02
ENSG00000148300	REXO4	-0.024	7.360E-02
ENSG00000147526	TACC1	-0.021	7.384E-02
ENSG00000176386	CDC26	0.025	7.390E-02
ENSG00000171867	PRNP	-0.022	7.391E-02
ENSG00000196262	PPIA	0.030	7.396E-02
ENSG00000140995	DEF8	-0.030	7.396E-02
ENSG00000274266	SNORA73A	0.065	7.409E-02
ENSG00000110721	CHKA	-0.038	7.428E-02
ENSG00000286053	ASDURF	0.149	7.428E-02
ENSG00000051009	FAM160A2	0.027	7.433E-02
ENSG00000187837	H1-2	-0.029	7.459E-02
ENSG00000173905	GOLIM4	-0.034	7.465E-02
ENSG00000109606	DHX15	-0.016	7.473E-02
ENSG00000182117	NOP10	0.029	7.486E-02
ENSG00000126003	PLAGL2	0.037	7.487E-02
ENSG00000064199	SPA17	0.112	7.487E-02
ENSG00000114013	CD86	-0.033	7.487E-02
ENSG00000236254	MTND4P14	0.056	7.487E-02
ENSG00000244731	C4A	0.120	7.494E-02
ENSG00000126947	ARMCX1	-0.054	7.494E-02
ENSG00000287595	AC097369.2	-0.076	7.494E-02

ENSG00000101181	MTG2	-0.028	7.494E-02
ENSG00000118985	ELL2	0.038	7.496E-02
ENSG00000047634	SCML1	-0.042	7.499E-02
ENSG00000251323	LINC02728	-0.041	7.499E-02
ENSG00000244437	IGKV3-15	-0.076	7.507E-02
ENSG00000145545	SRD5A1	0.034	7.508E-02
ENSG00000165178	NCF1C	-0.044	7.508E-02
ENSG00000119787	ATL2	-0.023	7.511E-02
ENSG00000146425	DYNLT1	0.027	7.527E-02
ENSG00000080845	DLGAP4	0.049	7.528E-02
ENSG00000197044	ZNF441	-0.042	7.531E-02
ENSG00000173540	GMPPB	-0.022	7.536E-02
ENSG00000196628	TCF4	-0.041	7.556E-02
ENSG00000143452	HORMAD1	0.059	7.557E-02
ENSG00000099998	GGT5	0.120	7.558E-02
ENSG00000106052	TAX1BP1	0.022	7.581E-02
ENSG00000067369	TP53BP1	-0.023	7.581E-02
ENSG00000164715	LMTK2	-0.036	7.587E-02
ENSG00000082074	FYB1	0.023	7.590E-02
ENSG00000258568	RHOQP1	-0.068	7.597E-02
ENSG00000285696	AP002433.2	0.059	7.598E-02
ENSG00000267296	CEBPA-DT	0.051	7.613E-02
ENSG00000273270	AC090114.2	-0.026	7.613E-02
ENSG00000246339	EXTL3-AS1	-0.089	7.613E-02
ENSG00000004809	SLC22A16	0.063	7.613E-02
ENSG00000227195	MIR663AHG	-0.056	7.613E-02
ENSG00000233429	HOTAIRM1	-0.047	7.627E-02
ENSG00000122733	PHF24	-0.123	7.629E-02
ENSG00000130741	EIF2S3	-0.013	7.642E-02
ENSG00000168827	GFM1	-0.020	7.653E-02
ENSG00000179253	AL162457.1	-0.068	7.656E-02
ENSG00000164080	RAD54L2	-0.026	7.656E-02
ENSG00000197766	CFD	-0.081	7.663E-02
ENSG00000236287	ZBED5	0.022	7.674E-02
ENSG00000173821	RNF213	0.039	7.690E-02
ENSG00000102755	FLT1	0.072	7.690E-02
ENSG00000133247	KMT5C	-0.042	7.692E-02
ENSG00000157881	PANK4	-0.020	7.694E-02
ENSG00000266289	AC012213.3	0.073	7.706E-02
ENSG00000279463	AL159972.1	0.066	7.706E-02
ENSG00000183032	SLC25A21	0.130	7.730E-02
ENSG00000234814	SVIL2P	0.107	7.740E-02
ENSG00000200816	SNORA38	0.090	7.744E-02
ENSG00000142751	GPN2	-0.031	7.744E-02
ENSG00000139117	CPNE8	0.035	7.750E-02
ENSG00000170525	PFKFB3	0.040	7.750E-02
ENSG00000254876	SUGT1P4-STRA6LP	-0.032	7.752E-02

ENSG00000178665	ZNF713	-0.059	7.752E-02
ENSG00000070190	DAPP1	0.025	7.756E-02
ENSG00000108528	SLC25A11	-0.019	7.756E-02
ENSG00000246859	STARD4-AS1	-0.065	7.757E-02
ENSG00000107018	RLN1	0.063	7.757E-02
ENSG00000205846	CLEC6A	0.063	7.760E-02
ENSG00000131242	RAB11FIP4	-0.025	7.762E-02
ENSG00000283486	FAM95C	0.090	7.768E-02
ENSG00000008226	DLEC1	0.053	7.768E-02
ENSG00000135365	PHF21A	0.033	7.781E-02
ENSG00000260711	AL121839.2	0.042	7.792E-02
ENSG00000119138	KLF9	-0.025	7.797E-02
ENSG00000173230	GOLGB1	-0.018	7.797E-02
ENSG00000169682	SPNS1	-0.033	7.797E-02
ENSG00000026297	RNASET2	-0.034	7.800E-02
ENSG00000276045	ORAI1	-0.025	7.830E-02
ENSG00000118515	SGK1	-0.033	7.833E-02
ENSG00000110063	DCPS	-0.029	7.841E-02
ENSG00000206634	SNORA22	0.074	7.841E-02
ENSG00000074842	MYDGF	-0.027	7.841E-02
ENSG00000254473	AL354920.1	0.077	7.841E-02
ENSG00000162398	LEXM	0.074	7.841E-02
ENSG00000073331	ALPK1	0.042	7.848E-02
ENSG00000179750	APOBEC3B	-0.145	7.851E-02
ENSG00000259660	DNM1P47	-0.052	7.851E-02
ENSG00000152944	MED21	0.021	7.869E-02
ENSG00000149823	VPS51	-0.022	7.869E-02
ENSG00000251441	RTEL1P1	0.056	7.887E-02
ENSG00000126246	IGFLR1	-0.028	7.887E-02
ENSG00000252835	SCARNA21	0.057	7.887E-02
ENSG00000133858	ZFC3H1	0.022	7.887E-02
ENSG00000251230	MIR3945HG	0.064	7.906E-02
ENSG00000268659	AL589863.1	0.100	7.906E-02
ENSG00000264006	AKR1C8P	0.097	7.911E-02
ENSG00000261150	EPPK1	-0.064	7.961E-02
ENSG00000214999	AC129492.1	-0.058	7.961E-02
ENSG00000119673	ACOT2	-0.040	7.961E-02
ENSG00000213203	GIMAP1	-0.019	7.964E-02
ENSG00000157224	CLDN12	0.055	7.976E-02
ENSG00000234810	AL603840.1	0.126	7.980E-02
ENSG00000130300	PLVAP	0.094	7.980E-02
ENSG00000158006	PAFAH2	-0.032	7.980E-02
ENSG00000010704	HFE	0.036	7.989E-02
ENSG00000239763	AC009120.1	-0.048	8.002E-02
ENSG00000273381	AL158071.4	0.053	8.015E-02
ENSG00000119632	IFI27L2	0.042	8.030E-02
ENSG00000141367	CLTC	0.024	8.030E-02

ENSG00000079950	STX7	0.020	8.030E-02
ENSG00000283064	AL353759.1	0.052	8.048E-02
ENSG00000251022	THAP9-AS1	-0.023	8.056E-02
ENSG00000258667	HIF1A-AS3	0.076	8.079E-02
ENSG00000118507	AKAP7	0.047	8.090E-02
ENSG00000141580	WDR45B	-0.016	8.096E-02
ENSG00000141503	MINK1	0.044	8.112E-02
ENSG00000115421	PAPOLG	-0.022	8.120E-02
ENSG00000089597	GANAB	-0.020	8.120E-02
ENSG00000111843	TMEM14C	0.034	8.132E-02
ENSG00000138685	FGF2	0.107	8.148E-02
ENSG00000176624	MEX3C	-0.021	8.158E-02
ENSG00000183506	PI4KAP2	0.051	8.176E-02
ENSG00000141933	TPGS1	-0.030	8.176E-02
ENSG00000198093	ZNF649	-0.024	8.179E-02
ENSG00000169627	BOLA2B	0.041	8.189E-02
ENSG00000176641	RNF152	0.109	8.189E-02
ENSG00000081377	CDC14B	0.044	8.189E-02
ENSG00000100290	BIK	-0.061	8.196E-02
ENSG00000085491	SLC25A24	0.022	8.216E-02
ENSG00000171443	ZNF524	-0.031	8.216E-02
ENSG00000127914	AKAP9	-0.017	8.223E-02
ENSG00000278558	TMEM191B	0.126	8.232E-02
ENSG00000198792	TMEM184B	-0.039	8.234E-02
ENSG00000066044	ELAVL1	-0.018	8.240E-02
ENSG00000161654	LSM12	0.016	8.241E-02
ENSG00000147180	ZNF711	-0.057	8.245E-02
ENSG00000130706	ADRM1	-0.022	8.249E-02
ENSG00000010318	PHF7	0.037	8.253E-02
ENSG00000285117	AC068724.4	0.174	8.254E-02
ENSG00000118640	VAMP8	0.031	8.281E-02
ENSG00000075336	TIMM21	-0.032	8.281E-02
ENSG00000120519	SLC10A7	0.025	8.285E-02
ENSG00000104381	GDAP1	-0.031	8.289E-02
ENSG00000239779	WBP1	-0.022	8.290E-02
ENSG00000136444	RSAD1	-0.021	8.290E-02
ENSG00000198909	MAP3K3	-0.025	8.293E-02
ENSG00000198841	KTI12	-0.022	8.293E-02
ENSG00000175130	MARCKSL1	-0.029	8.297E-02
ENSG00000100109	TFIP11	-0.020	8.297E-02
ENSG00000087884	AAMDC	-0.042	8.305E-02
ENSG00000145882	PCYOX1L	-0.022	8.314E-02
ENSG00000237550	AC243919.1	0.149	8.322E-02
ENSG00000162298	SYVN1	0.039	8.322E-02
ENSG00000196843	ARID5A	-0.027	8.322E-02
ENSG00000187753	C9orf153	0.070	8.324E-02
ENSG00000240288	GHRLOS	0.043	8.335E-02

ENSG00000203780	FANK1	0.072	8.342E-02
ENSG00000196636	SDHAF3	0.031	8.361E-02
ENSG00000213186	TRIM59	0.029	8.362E-02
ENSG00000267871	ZNF460-AS1	-0.046	8.362E-02
ENSG00000011132	APBA3	-0.028	8.365E-02
ENSG00000143476	DTL	0.073	8.378E-02
ENSG00000266053	NDUFV2-AS1	0.035	8.378E-02
ENSG00000175283	DOLK	-0.026	8.378E-02
ENSG00000099725	PRKY	0.034	8.378E-02
ENSG00000054282	SDCCAG8	0.026	8.378E-02
ENSG00000159596	TMEM69	-0.019	8.378E-02
ENSG00000163083	INHBB	-0.088	8.384E-02
ENSG00000167981	ZNF597	-0.020	8.393E-02
ENSG00000261222	AC064805.1	-0.071	8.396E-02
ENSG00000168040	FADD	-0.021	8.396E-02
ENSG00000272980	Z94721.2	0.041	8.397E-02
ENSG00000078070	MCCC1	-0.023	8.402E-02
ENSG00000153214	TMEM87B	0.021	8.402E-02
ENSG00000170899	GSTA4	0.067	8.405E-02
ENSG00000136156	ITM2B	-0.029	8.410E-02
ENSG00000271699	SNX29P2	0.059	8.424E-02
ENSG00000077150	NFKB2	0.021	8.447E-02
ENSG00000105376	ICAM5	0.077	8.447E-02
ENSG00000257524	AL157935.2	0.054	8.448E-02
ENSG00000141337	ARSG	-0.026	8.453E-02
ENSG00000201098	RNY1	0.087	8.457E-02
ENSG00000078699	CBFA2T2	0.030	8.458E-02
ENSG00000196155	PLEKHG4	-0.050	8.503E-02
ENSG00000177646	ACAD9	-0.021	8.503E-02
ENSG00000171100	MTM1	0.017	8.503E-02
ENSG00000280190	AC027279.4	0.089	8.507E-02
ENSG00000280195	AC245140.2	-0.045	8.523E-02
ENSG00000126861	OMG	0.052	8.526E-02
ENSG00000199631	SNORD33	0.072	8.528E-02
ENSG00000116679	IVNS1ABP	-0.018	8.533E-02
ENSG00000198952	SMG5	-0.024	8.550E-02
ENSG00000244575	IGKV1-27	-0.086	8.555E-02
ENSG00000047315	POLR2B	-0.016	8.562E-02
ENSG00000053524	MCF2L2	0.049	8.606E-02
ENSG00000165118	C9orf64	-0.025	8.619E-02
ENSG00000101882	NKAP	-0.022	8.619E-02
ENSG00000167130	DOLPP1	-0.031	8.622E-02
ENSG00000167220	HDHD2	-0.021	8.628E-02
ENSG00000226822	LINC02785	0.055	8.628E-02
ENSG00000152766	ANKRD22	0.079	8.642E-02
ENSG00000060069	CTDP1	-0.021	8.642E-02
ENSG00000120727	PAIP2	0.022	8.644E-02

ENSG00000215533	LINC00189	0.109	8.658E-02
ENSG00000081154	PCNP	0.020	8.693E-02
ENSG00000104738	MCM4	0.043	8.693E-02
ENSG00000090989	EXOC1	-0.018	8.693E-02
ENSG00000147883	CDKN2B	0.046	8.693E-02
ENSG00000197557	TTC30A	-0.039	8.693E-02
ENSG00000235183	SRP14P3	-0.057	8.703E-02
ENSG00000241170	AP001992.1	0.035	8.720E-02
ENSG00000281808	AL355987.6	0.117	8.733E-02
ENSG00000136280	CCM2	-0.016	8.733E-02
ENSG00000165914	TTC7B	0.060	8.735E-02
ENSG00000139626	ITGB7	-0.027	8.748E-02
ENSG00000188878	FBF1	-0.036	8.750E-02
ENSG00000271858	CYB561D2	-0.058	8.758E-02
ENSG00000273749	CYFIP1	0.031	8.758E-02
ENSG00000108953	YWHAE	0.019	8.760E-02
ENSG00000105647	PIK3R2	0.093	8.796E-02
ENSG00000211794	TRAV12-3	-0.048	8.796E-02
ENSG00000025772	TOMM34	-0.027	8.796E-02
ENSG00000197386	HTT	0.030	8.814E-02
ENSG00000279529	AC008764.8	-0.021	8.822E-02
ENSG00000197933	ZNF823	-0.039	8.825E-02
ENSG00000271121	NUDT4P2	0.138	8.834E-02
ENSG00000072954	TMEM38A	0.051	8.834E-02
ENSG00000182871	COL18A1	-0.063	8.834E-02
ENSG00000133142	TCEAL4	-0.037	8.834E-02
ENSG00000234436	AC245884.2	0.083	8.834E-02
ENSG00000187446	CHP1	0.028	8.838E-02
ENSG00000136271	DDX56	-0.017	8.843E-02
ENSG00000155744	FAM126B	0.034	8.845E-02
ENSG00000277007	AC096642.1	0.056	8.846E-02
ENSG00000251546	IGKV1D-39	-0.080	8.854E-02
ENSG00000170892	TSEN34	-0.033	8.860E-02
ENSG00000227032	RPS2P36	0.037	8.867E-02
ENSG00000110025	SNX15	0.048	8.870E-02
ENSG00000137501	SYTL2	-0.047	8.871E-02
ENSG00000065328	MCM10	0.074	8.871E-02
ENSG00000198598	MMP17	0.071	8.872E-02
ENSG00000171148	TADA3	0.023	8.876E-02
ENSG00000279880	AC134407.3	0.034	8.878E-02
ENSG00000163534	FCRL1	0.062	8.879E-02
ENSG00000279406	AL359183.1	-0.053	8.889E-02
ENSG00000106268	NUDT1	0.035	8.899E-02
ENSG00000286030	AC015911.9	0.031	8.938E-02
ENSG00000133313	CNDP2	-0.019	8.948E-02
ENSG00000117448	AKR1A1	-0.022	8.948E-02
ENSG00000178585	CTNNBIP1	-0.030	8.965E-02

ENSG00000231584	FAHD2CP	-0.044	8.967E-02
ENSG00000167258	CDK12	0.019	8.967E-02
ENSG00000125877	ITPA	-0.023	8.970E-02
ENSG00000140391	TSPAN3	-0.030	8.973E-02
ENSG00000148120	AOPEP	-0.026	8.974E-02
ENSG00000173626	TRAPPC3L	0.075	8.977E-02
ENSG00000226149	AL356124.1	0.078	8.998E-02
ENSG00000167074	TEF	-0.032	9.004E-02
ENSG00000182973	CNOT10	-0.019	9.008E-02
ENSG00000214552	COPS8P2	0.064	9.009E-02
ENSG00000272906	AL353708.3	0.036	9.009E-02
ENSG00000096063	SRPK1	0.033	9.044E-02
ENSG00000167280	ENGASE	-0.033	9.061E-02
ENSG00000181908	LINC02724	-0.054	9.064E-02
ENSG00000120915	EPHX2	-0.046	9.064E-02
ENSG00000095951	HIVEP1	-0.021	9.064E-02
ENSG00000183161	FANCF	-0.023	9.064E-02
ENSG00000244257	PKD1P1	0.171	9.067E-02
ENSG00000105371	ICAM4	0.051	9.067E-02
ENSG00000198001	IRAK4	0.017	9.067E-02
ENSG00000115274	INO80B	-0.025	9.071E-02
ENSG00000066583	ISOC1	-0.024	9.071E-02
ENSG00000166801	FAM111A	-0.017	9.071E-02
ENSG00000214293	APTR	-0.038	9.080E-02
ENSG00000154174	TOMM70	-0.021	9.084E-02
ENSG00000117748	RPA2	-0.020	9.084E-02
ENSG00000160285	LSS	0.030	9.084E-02
ENSG00000141404	GNAL	-0.088	9.084E-02
ENSG00000137054	POLR1E	-0.025	9.095E-02
ENSG00000115540	MOB4	0.031	9.105E-02
ENSG00000131634	TMEM204	-0.039	9.109E-02
ENSG00000197312	DDI2	0.020	9.112E-02
ENSG00000261324	AC010168.2	-0.022	9.119E-02
ENSG00000168137	SETD5	0.029	9.119E-02
ENSG00000067606	PRKCZ	-0.027	9.119E-02
ENSG00000164309	CMYA5	0.063	9.124E-02
ENSG00000270096	AC078795.2	0.060	9.124E-02
ENSG00000130159	ECSIT	0.036	9.127E-02
ENSG00000187091	PLCD1	-0.035	9.154E-02
ENSG00000152128	TMEM163	-0.088	9.159E-02
ENSG00000274712	AC005332.4	0.036	9.164E-02
ENSG00000104880	ARHGEF18	-0.020	9.171E-02
ENSG00000251136	AF117829.1	0.031	9.177E-02
ENSG00000162148	PPP1R32	0.066	9.178E-02
ENSG00000232593	KANTR	-0.022	9.184E-02
ENSG00000151067	CACNA1C	0.102	9.186E-02
ENSG00000136813	ECPAS	0.015	9.190E-02

ENSG00000236753	MKLN1-AS	0.050	9.191E-02
ENSG00000163629	PTPN13	0.051	9.191E-02
ENSG00000179761	PIPOX	-0.038	9.194E-02
ENSG00000135452	TSPAN31	-0.024	9.197E-02
ENSG00000100519	PSMC6	0.028	9.211E-02
ENSG00000112378	PERP	-0.055	9.211E-02
ENSG00000182107	TMEM30B	-0.052	9.257E-02
ENSG00000272916	AC022400.5	0.043	9.270E-02
ENSG00000248791	AC010627.1	0.039	9.270E-02
ENSG00000157326	DHRS4	-0.027	9.282E-02
ENSG00000286181	AC232271.3	0.072	9.301E-02
ENSG00000249138	SLED1	0.054	9.315E-02
ENSG00000261996	AC004706.1	-0.053	9.315E-02
ENSG00000101977	MCF2	0.061	9.325E-02
ENSG00000149923	PPP4C	-0.023	9.337E-02
ENSG00000153487	ING1	-0.016	9.345E-02
ENSG00000164830	OXR1	0.019	9.350E-02
ENSG00000235408	SNORA71B	0.065	9.351E-02
ENSG00000224034	LINC02561	0.074	9.358E-02
ENSG00000198815	FOXJ3	0.023	9.362E-02
ENSG00000257379	AC023509.1	0.126	9.367E-02
ENSG00000232528	AL109809.1	0.058	9.367E-02
ENSG00000197872	CYRIA	-0.024	9.367E-02
ENSG00000224885	EIPR1-IT1	0.067	9.380E-02
ENSG00000131149	GSE1	0.038	9.380E-02
ENSG00000156026	MCU	0.024	9.388E-02
ENSG00000151327	FAM177A1	-0.021	9.388E-02
ENSG00000197063	MAFG	0.030	9.395E-02
ENSG00000269921	AC068620.1	-0.068	9.396E-02
ENSG00000267216	ZNF8-ERVK3-1	-0.022	9.399E-02
ENSG00000011426	ANLN	0.077	9.425E-02
ENSG00000142173	COL6A2	-0.061	9.430E-02
ENSG00000010539	ZNF200	-0.021	9.430E-02
ENSG00000250616	AC012645.1	-0.046	9.430E-02
ENSG00000204161	TMEM273	-0.040	9.430E-02
ENSG00000167083	GNGT2	-0.035	9.434E-02
ENSG00000184208	C22orf46	-0.025	9.456E-02
ENSG00000108591	DRG2	-0.021	9.461E-02
ENSG00000090520	DNAJB11	-0.021	9.461E-02
ENSG00000225213	AC073367.1	0.066	9.477E-02
ENSG00000185885	IFITM1	0.034	9.480E-02
ENSG00000048052	HDAC9	0.032	9.484E-02
ENSG00000274070	CASTOR2	0.058	9.495E-02
ENSG00000270550	IGHV3-30	-0.090	9.495E-02
ENSG00000067066	SP100	0.019	9.495E-02
ENSG00000204152	TIMM23B	0.025	9.496E-02
ENSG00000287932	AC000065.2	0.039	9.499E-02

ENSG00000241886	AC112496.1	0.053	9.503E-02
ENSG00000101335	MYL9	0.096	9.508E-02
ENSG00000183044	ABAT	-0.033	9.508E-02
ENSG00000259330	INAFM2	-0.026	9.508E-02
ENSG00000258744	AL132800.1	-0.076	9.513E-02
ENSG00000118482	PHF3	-0.015	9.529E-02
ENSG00000256628	ZBTB11-AS1	-0.021	9.531E-02
ENSG00000125124	BBS2	-0.029	9.531E-02
ENSG00000160256	FAM207A	-0.036	9.533E-02
ENSG00000256981	AC134349.2	0.034	9.548E-02
ENSG00000033867	SLC4A7	0.025	9.572E-02
ENSG00000003056	M6PR	-0.015	9.572E-02
ENSG00000242076	IGKV1-33	-0.066	9.572E-02
ENSG00000211778	TRAV4	-0.050	9.590E-02
ENSG00000108510	MED13	0.017	9.594E-02
ENSG00000153029	MR1	-0.015	9.594E-02
ENSG00000171865	RNASEH1	-0.021	9.599E-02
ENSG00000153066	TXNDC11	-0.022	9.599E-02
ENSG00000117625	RCOR3	0.016	9.602E-02
ENSG00000173660	UQCRH	0.035	9.602E-02
ENSG00000228956	SATB1-AS1	-0.033	9.602E-02
ENSG00000122986	HVCN1	-0.023	9.605E-02
ENSG00000130349	MTRES1	-0.029	9.607E-02
ENSG00000117479	SLC19A2	-0.023	9.607E-02
ENSG00000085788	DDHD2	0.023	9.608E-02
ENSG00000201229	SNORA63D	0.088	9.614E-02
ENSG00000073464	CLCN4	-0.055	9.617E-02
ENSG00000090376	IRAK3	0.039	9.619E-02
ENSG00000162873	KLHDC8A	0.100	9.619E-02
ENSG00000142405	NLRP12	-0.033	9.619E-02
ENSG00000157800	SLC37A3	0.036	9.619E-02
ENSG00000006757	PNPLA4	-0.053	9.619E-02
ENSG00000164136	IL15	0.034	9.619E-02
ENSG00000116521	SCAMP3	-0.021	9.619E-02
ENSG00000181284	TMEM102	-0.025	9.626E-02
ENSG00000156709	AIFM1	-0.016	9.632E-02
ENSG00000105877	DNAH11	0.148	9.651E-02
ENSG00000138592	USP8	-0.015	9.661E-02
ENSG00000159714	ZDHHC1	-0.069	9.661E-02
ENSG00000130811	EIF3G	-0.020	9.661E-02
ENSG00000244754	N4BP2L2	0.016	9.664E-02
ENSG00000197880	MDS2	-0.070	9.666E-02
ENSG00000269800	PLEKHA3P1	-0.067	9.666E-02
ENSG00000199562	RNU6-37P	-0.173	9.666E-02
ENSG00000272345	AL031775.1	0.036	9.666E-02
ENSG00000173207	CKS1B	0.042	9.680E-02
ENSG00000103599	IQCH	0.079	9.680E-02

ENSG00000137100	DCTN3	-0.017	9.680E-02
ENSG00000239203	AC093484.1	0.067	9.680E-02
ENSG00000261451	AC104964.2	0.055	9.680E-02
ENSG00000266088	AC004585.1	0.054	9.680E-02
ENSG00000075340	ADD2	0.054	9.680E-02
ENSG00000126391	FRMD8	-0.027	9.686E-02
ENSG00000137486	ARRB1	-0.023	9.690E-02
ENSG00000171792	RHNO1	-0.027	9.690E-02
ENSG00000273824	AC008033.3	0.082	9.690E-02
ENSG00000090776	EFNB1	-0.033	9.694E-02
ENSG00000244405	ETV5	-0.116	9.694E-02
ENSG00000197622	CDC42SE1	-0.015	9.713E-02
ENSG00000213123	DYNLT2B	0.088	9.721E-02
ENSG00000226501	USF1P1	0.049	9.727E-02
ENSG00000060749	QSER1	0.028	9.752E-02
ENSG00000248727	LINC01948	0.038	9.752E-02
ENSG00000257509	AC073487.1	0.069	9.752E-02
ENSG00000167992	VWCE	0.098	9.769E-02
ENSG00000116198	CEP104	0.027	9.772E-02
ENSG00000101224	CDC25B	0.033	9.798E-02
ENSG00000005249	PRKAR2B	0.055	9.798E-02
ENSG00000162643	DNAI3	0.103	9.806E-02
ENSG00000112511	PHF1	-0.019	9.821E-02
ENSG00000135108	FBXO21	-0.021	9.826E-02
ENSG00000144579	CTDSP1	-0.021	9.827E-02
ENSG00000110077	MS4A6A	0.032	9.827E-02
ENSG00000092010	PSME1	-0.022	9.827E-02
ENSG00000151552	QDPR	-0.029	9.827E-02
ENSG00000176142	TMEM39A	-0.021	9.827E-02
ENSG00000171735	CAMTA1	0.020	9.827E-02
ENSG00000258337	AC130895.1	0.069	9.827E-02
ENSG00000088356	PDRG1	-0.023	9.827E-02
ENSG00000102349	KLF8	0.040	9.827E-02
ENSG00000176438	SYNE3	0.018	9.827E-02
ENSG00000184640	SEPTIN9	-0.017	9.827E-02
ENSG00000160214	RRP1	-0.032	9.831E-02
ENSG00000159713	TPPP3	-0.057	9.857E-02
ENSG00000270640	AC104695.3	-0.045	9.862E-02
ENSG00000033170	FUT8	0.026	9.862E-02
ENSG00000081026	MAGI3	0.048	9.864E-02
ENSG00000150991	UBC	-0.020	9.864E-02
ENSG00000170653	ATF7	0.036	9.864E-02
ENSG00000274808	TBC1D3B	0.058	9.864E-02
ENSG00000225663	MCRIP1	-0.029	9.864E-02
ENSG00000107968	MAP3K8	0.019	9.870E-02
ENSG00000182308	DCAF4L1	0.041	9.883E-02
ENSG00000079459	FDFT1	0.018	9.886E-02

ENSG00000279873	LINC01126	-0.026	9.896E-02
ENSG00000185842	DNAH14	0.110	9.897E-02
ENSG00000256223	ZNF10	-0.034	9.897E-02
ENSG00000126351	THRA	-0.030	9.897E-02
ENSG00000005156	LIG3	-0.025	9.898E-02
ENSG00000117461	PIK3R3	0.048	9.902E-02
ENSG00000287817	AL096701.4	-0.034	9.918E-02
ENSG00000116138	DNAJC16	0.021	9.919E-02
ENSG00000077063	CTTNBP2	-0.125	9.922E-02
ENSG00000110801	PSMD9	0.023	9.922E-02
ENSG00000187555	USP7	0.015	9.938E-02
ENSG00000229692	SOS1-IT1	0.030	9.954E-02
ENSG00000005100	DHX33	0.021	9.958E-02
ENSG00000158019	BABAM2	-0.020	9.958E-02
ENSG00000156261	CCT8	-0.019	9.977E-02
ENSG00000088682	COQ9	-0.015	9.984E-02
ENSG00000160183	TMPRSS3	0.092	9.990E-02

Table E17. Significant Gene Ontology enrichment terms for IEAemph (adjusted p-value < 0.001). Gene ontology (GO) pathway enrichment analysis was performed using the GO "Biological Process" gene sets with p-values calculated with the Fisher exact test statistic using the weight01 algorithm in topGO (v2.33.1) that accounts for dependency in GO topology.

GO Terms	Description	Annotated	Significant	Adjusted P-values
GO:0043312	neutrophil degranulation	461	239	2.6e-18
GO:0019083	viral transcription	174	99	4.2e-17
GO:0000184	nuclear-transcribed mRNA catabolic process, nonsense-mediated decay	119	79	2e-14
GO:0006614	SRP-dependent cotranslational protein targeting to membrane	99	65	2.2e-13
GO:0006413	translational initiation	185	93	2.3e-13
GO:0002181	cytoplasmic translation	98	51	2.2e-07
GO:0006364	rRNA processing	224	124	6.4e-07
GO:0006954	inflammatory response	529	250	4.4e-06
GO:0006955	immune response	1758	750	2e-05
GO:0045730	respiratory burst	33	20	3.3e-05
GO:0051092	positive regulation of NF-kappaB transcription factor activity	138	67	4.7e-05
GO:0046641	positive regulation of alpha-beta T cell proliferation	19	16	5.6e-05
GO:0007204	positive regulation of cytosolic calcium ion concentration	193	86	9e-05
GO:0071260	cellular response to mechanical stimulus	63	35	0.00011
GO:0032731	positive regulation of interleukin-1 beta production	43	26	0.00013
GO:0051607	defense response to virus	216	93	0.00014
GO:0000470	maturation of LSU-rRNA	28	19	0.00015
GO:0032930	positive regulation of superoxide anion generation	15	12	0.0002
GO:0031623	receptor internalization	76	40	0.00024
GO:0006959	humoral immune response	209	63	0.00024
GO:0032755	positive regulation of interleukin-6 production	65	35	0.00025
GO:0042274	ribosomal small subunit biogenesis	74	44	0.00026
GO:0007000	nucleolus organization	7	7	0.00036
GO:0038083	peptidyl-tyrosine autophosphorylation	34	21	0.00038
GO:0042981	regulation of apoptotic process	1129	448	0.00047
GO:0000027	ribosomal large subunit assembly	28	18	0.0005
GO:0050829	defense response to Gram-negative bacterium	42	24	0.00076
GO:0043123	positive regulation of I-kappaB kinase/NF-kappaB signaling	171	75	0.00098
GO:0043410	positive regulation of MAPK cascade	365	159	0.00099

Table E18. Significant Gene Ontology enrichment terms for IEAirway (adjusted p-value < 0.001). Gene ontology (GO) pathway enrichment analysis was performed using the GO "Biological Process" gene sets with p-values calculated with the Fisher exact test statistic using the weight01 algorithm in topGO (v2.33.1) that accounts for dependency in GO topology.

GO Terms	Description	Annotated	Significant	Adjusted P-values
GO:0006396	RNA processing	981	204	1.80E-08
GO:0098869	cellular oxidant detoxification	77	33	1.00E-06
GO:0042744	hydrogen peroxide catabolic process	24	14	1.70E-05
GO:0006879	cellular iron ion homeostasis	56	25	7.30E-05
GO:0001895	retina homeostasis	43	16	9.10E-05
GO:0030449	regulation of complement activation	79	30	9.20E-05
GO:0019886	antigen processing and presentation of exogenous peptide antigen via MHC class I	90	32	0.0001
GO:0006413	translational initiation	185	53	0.0001
GO:0006614	SRP-dependent cotranslational protein targeting to membrane	99	34	0.00024
GO:0050900	leukocyte migration	377	89	0.00052
GO:0002755	MyD88-dependent toll-like receptor signaling pathway	35	15	0.00078
GO:0010893	positive regulation of steroid biosynthetic process	13	8	0.00081
GO:0009048	dosage compensation by inactivation of X chromosome	16	9	0.00084