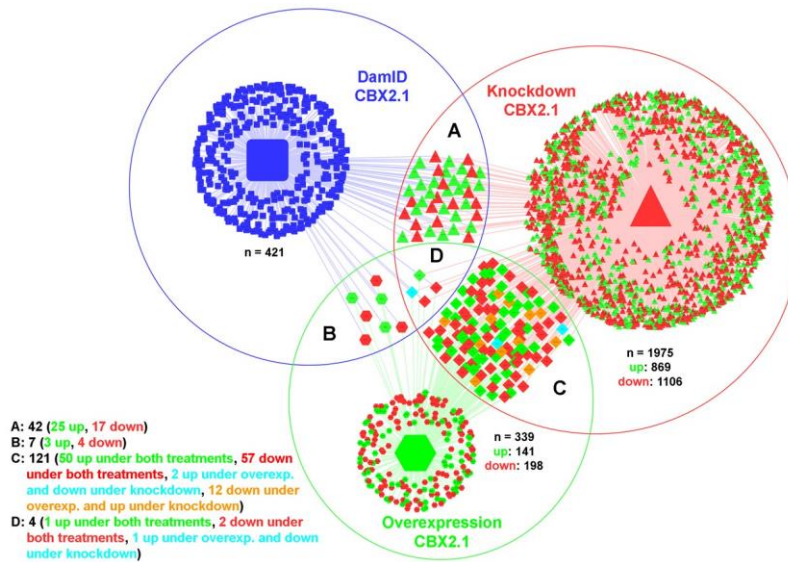


1 **The transcriptional regulator CBX2 and ovarian function: A whole genome**
2 **and whole transcriptome approach.**

3 Leila Bouazzi¹, Patrick Sproll^{*1}, Wassim Eid^{*2}, Anna Biason-Lauber¹

4 **Supplementary information:**

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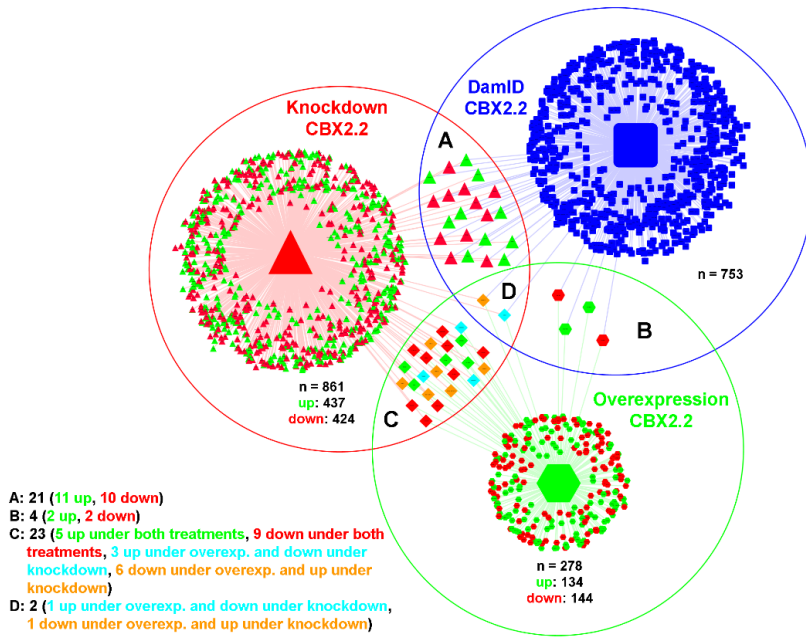
6

7 **Figure 1. Intersections of ovarian genes regulated by CBX2.1.**

8 A: is the intersection between the DamID-overexpression CBX2.1 genes and RNA seq-knockdown
9 CBX2.1 genes. B: is the intersection between the DamID- overexpression CBX2.1 genes and the
10 RNAseq overexpression CBX2.1 related genes. C: is the intersection between the RNA seq- knockdown
11 CBX2.1 regulated genes and the RNA seq- overexpression CBX2.1 regulated genes. D: is the
12 intersection between A, B and C. We used the false discovery rate as the criterion for determining the
13 set of genes that exhibit differential expression and its critical value has been set to be < 0.05 for all
14 comparisons.

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Figure 2. Intersections of ovarian genes regulated by CBX2.2

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We used the false discovery rate as the criterion for determining the set of genes that exhibit differential expression and its critical value has been set to 0.05 for all comparisons. A: is the intersection between the DamID-overexpression CBX2.2 genes and RNA seq-knockdown CBX2.2 genes. B: is the intersection between the DamID- overexpression CBX2.2 genes and the RNAseq overexpression CBX2.2 related genes. C: is the intersection between the RNA seq- knockdown CBX2.2 regulated genes and the RNA seq- overexpression CBX2.2 regulated genes. D: is the intersection between A, B and C.

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Gene Name	CBX2.1		CBX2.2	
	Fold enrichment	p-value	Fold enrichment	p-value
<i>ACTRT1</i>	6.73492	1.27E-10	7.84527	3.54E-06
<i>AGPAT4</i>	4.71444	8.18E-07	4.71266	0.00630812
<i>AKT3</i>	6.73492	1.27E-10	5.24413	0.00196512
<i>ARHGAP36</i>	6.06143	2.64E-09	5.24413	0.00196512
<i>ATP6V1D</i>	3.75359	6.00E-06	5.84503	0.00046323
<i>ATXN1</i>	4.71444	8.18E-07	6.55516	0.00010531
<i>C18ORF10</i>	4.71444	8.18E-07	5.30174	0.00174249
<i>C20ORF144</i>	5.27447	7.98E-08	4.51627	0.00835257
<i>C8B</i>	4.44978	2.45E-06	5.83804	0.00046323
<i>C8ORF48</i>	5.02544	2.21E-07	5.89965	0.00046323
<i>CBX2</i>	7.43178	3.02E-15	6.40969	0.00010531
<i>CD46</i>	5.47608	2.93E-08	5.30174	0.00174249
<i>CRB1</i>	4.47652	2.20E-06	5.89965	0.00046323
<i>DAB1</i>	3.93525	8.44E-06	4.71266	0.00630812
<i>EMBP1</i>	1.58341	8.70E-14	7.05066	2.11E-05
<i>FAM19A4</i>	5.38793	4.92E-08	5.19559	0.00196512
<i>FLJ43390</i>	6.03257	2.30E-09	4.71266	0.00630812
<i>FNDC3B</i>	5.38793	4.92E-08	5.12775	0.00196512
<i>GALC</i>	5.47608	2.93E-08	6.55516	0.00010531
<i>GALNTL6</i>	4.71444	8.18E-07	5.89965	0.00046323
<i>GIGYF1</i>	7.40841	5.59E-12	6.55516	0.00010531
<i>GORAB</i>	5.47608	2.93E-08	4.67102	0.00530958
<i>GOT2</i>	4.71444	8.18E-07	5.89965	0.00046323
<i>GRIK2</i>	4.71444	8.18E-07	5.83804	0.00046323
<i>HACE1</i>	6.06143	2.64E-09	4.40833	0.00835257
<i>HDGFL1</i>	4.82606	4.85E-07	4.67044	0.00630812
<i>HHEX</i>	6.06143	2.64E-09	4.31767	0.01210292
<i>HK2</i>	4.25918	5.18E-06	5.2176	0.00161808
<i>IDS</i>	6.06143	2.64E-09	4.58861	0.00835257
<i>KGFLP1</i>	5.47608	2.93E-08	3.9331	0.03323839
<i>KIAA1210</i>	6.08454	1.87E-09	4.12358	0.0225694
<i>KLF12</i>	5.38793	4.92E-08	6.4799	0.00010531
<i>KLHL4</i>	4.25918	5.18E-06	4.58861	0.00835257
<i>LEPREL1</i>	4.71444	8.18E-07	5.24413	0.00196512
<i>LHCGR</i>	4.71444	8.18E-07	4.58861	0.00835257
<i>LHFP</i>	4.82606	4.85E-07	6.55516	0.00010531
<i>LMO7</i>	7.23909	7.46E-12	6.42185	0.00010531
<i>LMX1A</i>	4.71444	8.18E-07	6.45181	0.00010531
<i>LOC100128505</i>	4.86763	4.12E-07	6.55516	0.00010531
<i>LOC100130000</i>	5.68425	1.30E-09	3.11958	0.03196907
<i>LOC145820</i>	7.40841	5.59E-12	7.21068	2.11E-05
<i>LOC1720</i>	4.25918	5.18E-06	7.21068	2.11E-05

<i>LOC255025</i>	6.03257	2.30E-09	4.90368	0.00343384
<i>LOC283089</i>	5.38793	4.92E-08	6.55516	0.00010531
<i>LOC338864</i>	4.71444	8.18E-07	5.58639	0.00075287
<i>LOC400456</i>	4.25918	5.18E-06	4.12358	0.0225694
<i>LOC440925</i>	6.73492	1.27E-10	6.55516	0.00010531
<i>LOC643486</i>	5.42932	3.52E-08	7.21068	2.11E-05
<i>LOC647012</i>	6.73492	1.27E-10	5.89965	0.00046323
<i>LOC729950</i>	5.75552	9.55E-09	4.58861	0.00835257
<i>LRP1B</i>	4.71444	8.18E-07	5.24413	0.00196512
<i>LRRIQ3</i>	6.06143	2.64E-09	5.89082	0.00046323
<i>LUZP4</i>	3.41235	3.47E-05	5.38224	0.0013736
<i>MAPK8</i>	7.67403	1.28E-12	5.23018	0.00196512
<i>MED30</i>	6.73492	1.27E-10	6.2071	0.00017795
<i>MGMT</i>	5.42932	3.52E-08	6.20065	0.0001208
<i>MIR4500</i>	3.41235	3.47E-05	7.21068	2.11E-05
<i>MIR4671</i>	7.11806	1.20E-11	5.83804	0.00046323
<i>MIR4789</i>	4.71444	8.18E-07	6.55516	0.00010531
<i>MIR708</i>	5.11602	1.53E-07	5.89965	0.00046323
<i>MOCS1</i>	5.38793	4.92E-08	5.89082	0.00046323
<i>NA</i>	1.55635	5.75E-13	1.3826	0.0018999
<i>NAV3</i>	5.38793	4.92E-08	7.21068	2.11E-05
<i>NFIA</i>	5.1381	1.08E-07	5.89082	0.00046323
<i>ODZ4</i>	6.06143	2.64E-09	6.55516	0.00010531
<i>OLFM4</i>	6.08454	1.87E-09	5.89965	0.00046323
<i>OR7E156P</i>	6.11066	2.69E-10	6.42185	0.00010531
<i>PALM2-AKAP2</i>	5.47608	2.93E-08	7.4959	6.49E-06
<i>PCBP3</i>	7.40841	5.59E-12	7.21068	2.11E-05
<i>PCDH9</i>	8.75539	8.37E-15	7.86619	3.54E-06
<i>PCLO</i>	5.38793	4.92E-08	5.89965	0.00046323
<i>PHF3</i>	6.73492	1.27E-10	4.12358	0.0225694
<i>PITX2</i>	4.66734	8.91E-07	6.42185	0.00010531
<i>PLA2G4A</i>	6.06143	2.64E-09	4.12358	0.0225694
<i>PLD5</i>	6.06143	2.64E-09	4.37261	0.01059449
<i>PTGER2</i>	4.86763	4.12E-07	5.24413	0.00196512
<i>PTPRG</i>	4.87654	2.85E-07	5.89965	0.00046323
<i>PURG</i>	6.39503	5.36E-10	5.24413	0.00196512
<i>RGS18</i>	4.71444	8.18E-07	5.30174	0.00174249
<i>ROBO1</i>	4.04095	1.19E-05	4.17517	0.00835257
<i>RPH3A</i>	7.40841	5.59E-12	4.58861	0.00835257
<i>RPL10L</i>	6.06143	2.64E-09	6.55516	0.00010531
<i>SEMA3C</i>	5.38793	4.92E-08	5.51041	0.00072545
<i>SIPA1L2</i>	4.69306	8.08E-07	4.71266	0.00630812
<i>SLC30A8</i>	6.73492	1.27E-10	4.96568	0.00304362
<i>SP3</i>	5.709	8.02E-09	5.30174	0.00174249
<i>STK32B</i>	6.06143	2.64E-09	5.24413	0.00196512
<i>STT3B</i>	4.86763	4.12E-07	5.73131	0.00048519

<i>TIMP3</i>	6.08454	1.87E-09	4.95937	0.00250721
<i>TLE4</i>	5.38793	4.92E-08	7.17633	1.64E-05
<i>TMEM182</i>	5.247	1.32E-08	5.89965	0.00046323
<i>TRDN</i>	7.2524	1.10E-11	6.45181	0.00010531
<i>TSPAN17</i>	4.53097	1.76E-06	4.96568	0.00304362
<i>TSPYL5</i>	3.93525	8.44E-06	4.71266	0.00630812
<i>VENTXP7</i>	5.38793	4.92E-08	4.12358	0.0225694

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Table 1. DamID CBX2.1 Versus DamID CBX2.2 (95 overlapped targets).

Gene name	CBX2.1		CBX2.2	
	Log2	p-Value	Log2	p-Value
<i>SIGLEC9</i>	5.544	4.69E-06	4.636	0.007006
<i>CXCL10</i>	5.391	1.75E-39	2.312	0.01494
<i>FOSB</i>	4.835	1.10E-52	1.453	0.01049
<i>MX1</i>	4.777	1.27E-38	1.334	0.0001695
<i>FGF12</i>	4.676	0.001708	4.344	0.01164
<i>MX2</i>	4.66	5.29E-42	1.736	4.19E-06
<i>TMPRSS7</i>	4.578	0.00102	5.407	0.001568
<i>GPR132</i>	4.444	0.002642	3.769	0.02856
<i>IFIT1</i>	4.253	6.68E-75	1.574	4.37E-09
<i>OAS2</i>	4.209	4.01E-26	1.441	0.0002251
<i>NFATC2</i>	4.195	2.03E-54	1.518	0.004543
<i>TRIM54</i>	4.089	0.005982	3.847	0.03092
<i>TRIM74</i>	4.089	0.005984	3.38	0.04835
<i>PRDM16</i>	4.058	0.009905	3.38	0.04835
<i>ENPP3</i>	3.881	0.01093	4.237	0.01702
<i>RAB40AL</i>	3.88	0.01093	3.654	0.03382
<i>EOMES</i>	3.648	0.02837	4.344	0.01164
<i>EPHX3</i>	3.642	0.02321	3.769	0.02855
<i>ANKRD20A2</i>	3.637	0.02016	3.99	0.01983
<i>ANO1</i>	3.637	0.02017	3.711	0.02886
<i>DUSP26</i>	3.637	0.02016	5.94	0.004941
<i>FAM47C</i>	3.637	0.02016	3.711	0.02886
<i>IFITM1</i>	3.611	7.64E-17	1.057	0.01837
<i>ESM1</i>	3.51	3.84E-24	1.353	0.02046
<i>IFI44L</i>	3.434	2.04E-28	1.344	4.81E-05
<i>BST2</i>	3.416	4.79E-26	1.045	0.0332
<i>LGALS9</i>	3.409	3.28E-30	1.087	0.036
<i>CDHR2</i>	3.341	0.04024	5.571	0.007451
<i>TMEM132B</i>	3.265	5.19E-33	1.194	0.02967
<i>BRINP3</i>	3.248	0.0005058	4.445	0.0003834
<i>DUSP6</i>	3.059	1.15E-65	1.239	4.70E-06
<i>NKD1</i>	2.919	0.000114	3.091	0.01725
<i>IL33</i>	2.88	9.63E-19	2.764	2.40E-12
<i>SP110</i>	2.833	3.64E-15	1.441	0.008575

<i>CXCR4</i>	2.807	2.94E-11	3.366	1.46E-05
<i>FOS</i>	2.802	7.72E-21	1.185	0.03755
<i>HERC5</i>	2.755	2.06E-44	1.058	0.0001109
<i>IFI44</i>	2.748	2.59E-32	1.379	9.61E-07
<i>NAMPT</i>	2.674	5.90E-67	1.27	8.29E-10
<i>CCL20</i>	2.643	8.22E-29	1.081	0.02731
<i>HS3ST3B1</i>	2.634	2.75E-36	1.522	1.87E-06
<i>RGCC</i>	2.542	3.82E-05	2.486	0.01486
<i>LAMP3</i>	2.521	3.14E-18	1.189	0.03062
<i>COL11A1</i>	2.513	0.0002631	-3.325	0.04107
<i>CCND2</i>	2.486	3.37E-20	1.253	0.002253
<i>SLC22A3</i>	2.433	8.38E-27	1.074	0.0009951
<i>BTC</i>	2.425	2.95E-20	1.584	3.89E-05
<i>SERPINB4</i>	2.368	0.03185	4.024	0.00797
<i>PROX1</i>	2.361	1.19E-06	1.889	0.04913
<i>IDO1</i>	2.34	6.23E-05	3.206	0.01496
<i>TMEM200A</i>	2.331	7.81E-31	1.763	1.37E-11
<i>AREG</i>	2.316	3.26E-15	1.486	0.007893
<i>SAMD3</i>	2.288	0.01618	3.255	0.005997
<i>GDNF</i>	2.28	4.67E-32	1.25	8.75E-06
<i>RP11-724O16.1</i>	2.277	0.001163	1.597	0.04382
<i>MAK</i>	2.274	4.47E-05	2.909	0.007892
<i>ZPLD1</i>	2.273	1.25E-16	1.172	0.03726
<i>TSLP</i>	2.158	1.62E-13	1.247	0.02433
<i>SPRY2</i>	2.155	6.43E-27	1.099	0.0002589
<i>SKOR1</i>	2.131	0.02454	2.205	0.04436
<i>CNIH3</i>	2.128	2.26E-20	1.352	0.0004487
<i>LTBP1</i>	2.045	7.07E-24	2.131	6.62E-14
<i>EHF</i>	2.02	3.87E-10	1.585	0.007887
<i>HBEGF</i>	1.983	5.53E-31	-1.083	5.43E-05
<i>KRT34</i>	1.935	9.16E-31	-1.283	0.0001034
<i>KCND2</i>	1.858	1.29E-09	2.035	0.0001901
<i>EMP1</i>	1.82	3.53E-37	1.887	2.31E-25
<i>ISOC1</i>	1.819	2.42E-14	1.646	9.33E-07
<i>PIK3R2</i>	1.776	1.78E-18	2.017	7.23E-23
<i>MYCT1</i>	1.774	8.34E-09	-2.71	0.003365
<i>TNFRSF10B</i>	1.766	4.97E-43	1.006	3.63E-11
<i>SLC7A11</i>	1.739	7.51E-22	-1.132	2.96E-07
<i>PHLDA1</i>	1.731	1.33E-26	1.422	3.55E-13
<i>DUSP4</i>	1.709	1.10E-25	1.064	1.26E-07
<i>RNASE7</i>	1.701	0.0162	-3.682	0.02187
<i>HAS2</i>	1.685	9.56E-17	1.26	8.04E-08
<i>AC013271.3</i>	1.643	0.03615	4.279	0.003955
<i>FAM155A</i>	1.641	5.34E-12	1.401	1.92E-05
<i>LINGO2</i>	1.625	0.0001071	1.619	0.04238
<i>KYNU</i>	1.618	1.09E-21	1.156	1.46E-07

<i>SATI</i>	1.602	1.97E-27	1.324	1.55E-10
<i>GLDN</i>	1.58	0.0003611	1.754	0.03532
<i>OPN3</i>	1.572	3.30E-18	1.494	5.41E-11
<i>CCDC65</i>	1.53	0.03252	2.946	0.007377
<i>CXCL3</i>	1.516	2.88E-16	1.248	1.52E-08
<i>RAB27B</i>	1.501	9.94E-18	1.813	1.04E-15
<i>DUSP2</i>	1.497	0.009574	-4.777	0.001346
<i>CD44</i>	1.477	2.38E-25	1.19	6.38E-11
<i>KIAA1211</i>	1.452	3.93E-06	1.712	0.0005445
<i>PDE2A</i>	1.45	1.86E-07	1.074	0.003094
<i>LRRC6</i>	1.448	4.47E-05	1.865	0.004529
<i>KCNK13</i>	1.443	0.0008147	-2.777	0.01522
<i>SIGLEC15</i>	1.443	1.73E-05	1.461	0.0188
<i>CD22</i>	1.438	1.51E-07	1.813	6.81E-05
<i>NCOA7</i>	1.406	3.62E-16	1.063	1.13E-06
<i>GBP5</i>	1.405	1.98E-07	1.234	0.0008812
<i>RORA</i>	1.385	7.66E-08	1.041	0.01541
<i>KCNH1</i>	1.358	2.18E-07	-1.899	0.0007923
<i>PCDH12</i>	1.358	6.92E-05	1.445	0.03194
<i>SH2D5</i>	1.353	8.64E-10	-1.023	0.009606
<i>FOPNL</i>	1.35	4.44E-14	1.569	1.35E-12
<i>NLRP10</i>	1.341	0.0005985	-3.546	0.0003808
<i>SLC4A10</i>	1.323	0.0002773	2.216	0.0006303
<i>NDRG1</i>	1.301	3.51E-15	1.184	3.62E-07
<i>ZNF844</i>	1.278	4.98E-06	1.317	0.01644
<i>TGFBR3</i>	1.276	1.97E-10	1.038	0.0002041
<i>PCTP</i>	1.248	3.09E-11	1.082	1.50E-05
<i>TNFSF4</i>	1.235	2.34E-06	1.487	1.26E-05
<i>CSF2RA</i>	1.227	3.97E-08	-1.254	0.04711
<i>RGPD6</i>	1.204	7.27E-13	1.081	7.42E-06
<i>FAM81A</i>	1.191	1.25E-05	1.472	0.0009289
<i>KIAA0408</i>	1.175	0.002405	1.107	0.04271
<i>PPARGC1A</i>	1.167	3.06E-09	-1.092	0.003656
<i>SOGA3</i>	1.157	0.004956	2.595	0.001124
<i>CHST3</i>	1.154	2.05E-17	1.259	2.89E-14
<i>CTD-2207023.12</i>	1.154	0.004849	1.618	0.02563
<i>CHAC1</i>	1.143	1.49E-05	-2.132	2.23E-07
<i>GALNT3</i>	1.132	2.78E-08	-1.109	0.001451
<i>PTGES</i>	1.114	0.0007451	1.708	0.00021
<i>SLC7A5</i>	1.114	1.71E-06	-1.44	4.83E-07
<i>ARRDC3</i>	1.108	3.20E-11	1.077	3.38E-06
<i>PIWIL4</i>	1.108	0.0001588	1.416	0.009216
<i>DDIT4L</i>	1.106	7.68E-06	1.07	0.002823
<i>HSD11B1</i>	1.098	2.44E-05	1.241	0.0004091
<i>ITGA2</i>	1.085	4.96E-11	1.193	2.51E-09
<i>AC015688.3</i>	1.08	0.01597	2.208	0.03623

<i>CDK6</i>	1.078	2.84E-14	-1.111	1.95E-08
<i>TMEM65</i>	1.074	1.48E-07	1.31	5.93E-07
<i>SLC2A13</i>	1.051	9.62E-08	1.126	3.69E-06
<i>TNFAIP6</i>	1.05	0.0002461	1.457	0.00156
<i>DPY19L1</i>	1.04	5.79E-15	1.062	1.13E-08
<i>P2RY1</i>	1.031	3.92E-06	1.02	0.003589
<i>RNF170</i>	1.029	1.86E-09	1.264	5.06E-07
<i>B3GNT5</i>	1.023	1.58E-05	1.317	0.0003728
<i>SHC4</i>	1.022	0.000201	1.245	0.01218
<i>THBS1</i>	-1.004	1.20E-13	-1.38	4.93E-12
<i>CORO6</i>	-1.011	0.005135	1.226	0.02191
<i>CASZ1</i>	-1.024	0.001182	-1.906	0.0005217
<i>GALNT15</i>	-1.032	0.0003089	1.068	0.006184
<i>HSPG2</i>	-1.049	0.001389	-1.002	0.006864
<i>MGAM</i>	-1.053	2.07E-13	-1.472	1.19E-10
<i>ACPP</i>	-1.069	0.01034	1.345	0.03652
<i>PMF1-BGLAP</i>	-1.072	0.001819	-1.362	0.03465
<i>SEMA4G</i>	-1.079	8.34E-05	1.22	4.47E-06
<i>SCN1B</i>	-1.094	0.0005448	1.19	0.0004012
<i>TMEM184A</i>	-1.105	0.000546	-1.29	0.006516
<i>TSPAN8</i>	-1.117	5.14E-06	1.012	0.001411
<i>YPEL1</i>	-1.13	0.001324	1.818	0.0002877
<i>NOX5</i>	-1.136	0.0003266	1.456	0.0004475
<i>HUNK</i>	-1.141	4.84E-06	-1.201	0.001618
<i>CDC42EP1</i>	-1.16	5.15E-05	-1.154	0.0007594
<i>CTSV</i>	-1.162	6.26E-05	1.013	0.003921
<i>ABCG4</i>	-1.168	0.002604	1.236	0.0392
<i>VASH2</i>	-1.175	0.0006663	1.746	0.0003341
<i>ARNT2</i>	-1.192	9.81E-19	-1.41	5.49E-17
<i>SERHL2</i>	-1.208	0.0004099	1.225	0.01559
<i>CTB-5506.8</i>	-1.21	0.01247	1.323	0.04772
<i>C10orf54</i>	-1.213	1.01E-07	-1.289	9.91E-08
<i>FLNA</i>	-1.233	1.44E-06	-1.099	0.0001064
<i>COL5A1</i>	-1.238	4.82E-11	-1.027	3.64E-06
<i>ST6GALNAC2</i>	-1.238	0.007562	1.967	0.001254
<i>KCNMB4</i>	-1.242	9.62E-05	1.196	0.009361
<i>ELFN2</i>	-1.246	3.63E-06	-1.27	0.0004866
<i>CNN2</i>	-1.248	1.98E-12	-1.143	2.97E-07
<i>MT1F</i>	-1.249	7.70E-06	-1.181	0.001914
<i>ZNF385B</i>	-1.252	0.001983	1.67	0.01142
<i>ST6GALNAC5</i>	-1.273	8.49E-15	-1.137	4.08E-08
<i>TCF7</i>	-1.283	0.001516	1.625	0.0003737
<i>ZCCHC5</i>	-1.285	1.41E-05	-1.506	0.003727
<i>LRP5</i>	-1.31	2.93E-05	-1.115	0.003333
<i>KRT86</i>	-1.311	3.79E-06	-1.218	0.01236
<i>TM4SF18</i>	-1.314	0.000476	1.478	0.01304

<i>PDLIM7</i>	-1.317	4.47E-08	-1.056	5.38E-05
<i>NME2</i>	-1.326	2.92E-08	-1.09	0.001009
<i>NPPB</i>	-1.327	0.00186	-3.412	0.0005131
<i>AP1M2</i>	-1.334	1.11E-08	-1.574	1.55E-05
<i>CXCL6</i>	-1.342	8.16E-09	1.384	2.29E-07
<i>MMP24</i>	-1.343	4.42E-13	-1.068	1.25E-05
<i>HTR1B</i>	-1.352	0.02162	-2.734	0.009903
<i>ABCA6</i>	-1.382	0.0009823	1.454	0.02836
<i>RDH5</i>	-1.406	2.40E-07	-1.075	0.01181
<i>NPB</i>	-1.433	0.01085	-2.241	0.02491
<i>NGEF</i>	-1.479	7.29E-07	1.623	1.11E-06
<i>TIAF1</i>	-1.48	1.47E-09	-1.151	0.009215
<i>EPHB3</i>	-1.491	0.001507	1.29	0.04932
<i>CYS1</i>	-1.513	0.008453	1.537	0.03524
<i>HSPB7</i>	-1.518	1.69E-15	-1.277	4.55E-08
<i>TLR7</i>	-1.533	0.02233	-3.579	0.002764
<i>FGF18</i>	-1.542	0.03337	-3.345	0.006421
<i>NUGGC</i>	-1.542	0.03432	-2.523	0.02356
<i>POTEE</i>	-1.57	2.31E-07	-1.507	0.01499
<i>LIMS2</i>	-1.597	2.31E-08	-1.159	0.00718
<i>KCNAB1</i>	-1.617	0.003027	-2.243	0.02502
<i>ACTB</i>	-1.62	1.29E-22	-1.307	1.06E-08
<i>CRB2</i>	-1.62	0.01625	-2.096	0.04385
<i>RDM1</i>	-1.642	0.0005524	1.818	0.002062
<i>MYPN</i>	-1.645	1.44E-12	-1.286	0.0001041
<i>PSG8</i>	-1.651	0.004041	-2.633	0.007901
<i>ERBB3</i>	-1.665	1.83E-08	-1	0.005128
<i>SYT2</i>	-1.678	0.0459	-3.225	0.008318
<i>VAT1L</i>	-1.684	9.87E-05	1.33	0.02215
<i>PROCA1</i>	-1.713	3.06E-05	1.322	0.02134
<i>RN7SL1</i>	-1.725	4.94E-05	-1.404	0.0008274
<i>EFHD1</i>	-1.726	0.001129	1.686	0.02111
<i>FSCN1</i>	-1.734	8.03E-11	-1.775	2.22E-07
<i>IER5L</i>	-1.815	1.11E-08	-1.005	0.003471
<i>PLCD4</i>	-1.826	6.00E-06	1.775	0.0003338
<i>GFRA1</i>	-1.841	5.42E-20	-1.055	2.34E-06
<i>RP11-1035H13.3</i>	-1.87	0.0006561	-2.543	0.0001317
<i>DIO2</i>	-1.884	1.08E-13	-1.838	9.15E-09
<i>ID3</i>	-1.892	2.80E-14	-1.04	0.0006341
<i>HSPB1</i>	-1.894	1.12E-09	-1.168	0.007668
<i>DOC2A</i>	-1.908	1.26E-07	1.047	0.03668
<i>RORC</i>	-1.922	0.02064	2.328	0.04545
<i>COL1A1</i>	-1.924	3.77E-14	-1.352	4.91E-05
<i>CHRNA6</i>	-1.93	0.04112	-2.71	0.04743
<i>CTAGE1</i>	-1.939	0.004858	-3.076	0.005336
<i>SYT15</i>	-1.94	1.17E-19	-1.582	0.003457

<i>MYL9</i>	-1.941	1.41E-21	-1.465	3.09E-11
<i>SERPINA6</i>	-1.946	3.67E-08	1.375	0.003493
<i>RP11-548K23.11</i>	-1.953	4.21E-08	-1.166	0.03325
<i>GPRC5C</i>	-1.957	3.82E-06	-1.393	0.04438
<i>MEST</i>	-1.99	6.65E-33	-1.168	5.54E-10
<i>CHST4</i>	-2.014	0.0003069	-2.442	0.01291
<i>HSPB3</i>	-2.041	8.23E-10	-1.255	0.006432
<i>NPTX1</i>	-2.061	0.01226	-4.805	0.000145
<i>DQX1</i>	-2.062	0.03762	2.699	0.02286
<i>RAB26</i>	-2.063	8.37E-05	1.64	0.007935
<i>PCSK1N</i>	-2.067	0.02771	-2.707	0.0341
<i>PLN</i>	-2.073	0.03761	-2.756	0.03571
<i>ADGRG5</i>	-2.083	0.04499	2.045	0.0296
<i>ADAMTS15</i>	-2.088	3.74E-15	-1.636	0.04124
<i>ACKR3</i>	-2.092	4.38E-10	-2.199	0.006931
<i>COL21A1</i>	-2.11	0.001133	1.638	0.03519
<i>RNA5-8S5</i>	-2.115	0.02804	-4.375	0.0002248
<i>TAGLN</i>	-2.144	5.11E-34	-2.057	3.85E-19
<i>CD24</i>	-2.198	4.27E-14	-1.141	0.002464
<i>ZMYND10</i>	-2.213	6.03E-07	1.412	0.01507
<i>TRPC3</i>	-2.239	4.35E-08	1.216	0.03472
<i>CACNG4</i>	-2.285	9.13E-16	-1.219	0.0002786
<i>C2orf15</i>	-2.303	0.005519	-3.362	0.008417
<i>MRVII</i>	-2.316	4.59E-14	-1.155	0.003098
<i>OLR1</i>	-2.372	0.04114	-3.991	0.01215
<i>CEMIP</i>	-2.376	1.90E-56	-1.024	1.22E-09
<i>TRIM29</i>	-2.396	1.19E-15	-1.208	0.00435
<i>MYO18B</i>	-2.436	0.0014	-2.782	0.01042
<i>ALS2CR11</i>	-2.447	0.0003313	-3.225	0.003294
<i>SRL</i>	-2.488	0.01469	-3.135	0.02151
<i>AC104389.28</i>	-2.52	3.89E-11	-1.29	0.042
<i>PLEKHA7</i>	-2.539	5.24E-07	-2.86	0.004365
<i>PCP4L1</i>	-2.544	0.00105	-3.679	0.002714
<i>DEPTOR</i>	-2.597	1.35E-23	-1.072	0.0001847
<i>FAM83C</i>	-2.617	0.01583	-2.507	0.04777
<i>RTP3</i>	-2.617	0.01584	-4.233	0.005304
<i>C4BPA</i>	-2.618	0.01605	-4.255	0.005347
<i>ATOX8</i>	-2.701	5.27E-32	-1.378	5.48E-06
<i>CNN1</i>	-2.704	4.37E-36	-2.491	2.35E-14
<i>B3GALT2</i>	-2.733	0.0003185	-2.602	0.01401
<i>CGB5</i>	-2.798	2.13E-13	-2.451	0.0037
<i>LDB3</i>	-2.862	2.94E-12	-2.763	0.001032
<i>SOAT2</i>	-2.896	3.63E-05	-3.228	0.002104
<i>DOK7</i>	-2.93	0.0003883	-2.843	0.01093
<i>EDN2</i>	-3.07	2.62E-15	-2.021	0.01984
<i>ELF3</i>	-3.102	1.41E-17	-1.065	0.03898

<i>METTL7A</i>	-3.307	4.02E-26	1.26	5.87E-05
<i>HIST1H3C</i>	-3.316	0.0009261	-3.113	0.01448
<i>ACTA2</i>	-3.352	7.80E-37	-2.881	6.12E-24
<i>SLC34A3</i>	-3.399	0.02375	-3.295	0.04252
<i>C9orf92</i>	-3.404	0.02358	-3.322	0.04124
<i>CLCNKB</i>	-3.404	0.02358	-3.322	0.04124
<i>KRT6B</i>	-3.404	0.02358	-3.322	0.04124
<i>AC005785.2</i>	-3.405	0.02356	-3.325	0.04107
<i>LCT</i>	-3.405	0.02356	-3.325	0.04107
<i>HIST1H2BL</i>	-3.406	0.02354	-3.329	0.04091
<i>RP11-420N3.3</i>	-3.406	0.02354	-3.329	0.04091
<i>TRBV14</i>	-3.41	0.02339	-3.352	0.0398
<i>DTX1</i>	-3.411	0.02337	-3.356	0.03964
<i>GSTA2</i>	-3.413	9.18E-13	-3.172	0.0003812
<i>EPPK1</i>	-3.551	4.77E-16	-2.856	0.001095
<i>LGII</i>	-3.701	6.96E-05	-2.862	0.01174
<i>KLHDC8A</i>	-3.716	1.16E-09	1.499	0.02878
<i>LEP</i>	-3.788	0.009128	-3.716	0.02086
<i>APOH</i>	-3.792	0.009058	-3.737	0.02024
<i>MAP2K6</i>	-3.959	8.82E-13	1.767	0.001741
<i>CLIC3</i>	-4.025	5.47E-21	-1.345	0.02839
<i>ACTG2</i>	-4.076	8.90E-33	-3.627	3.89E-19
<i>LMOD1</i>	-4.22	3.83E-66	-2.067	2.77E-16
<i>GSTA1</i>	-4.471	1.35E-21	-3.349	6.54E-05
<i>PLA2G5</i>	-4.552	0.0005553	-2.756	0.03374
<i>SOST</i>	-5.158	3.39E-05	-3.221	0.01096
<i>ITIH3</i>	-5.502	5.21E-06	-2.75	0.02556
<i>ERMN</i>	-6.692	1.18E-12	-2.264	0.01634
<i>CBX2</i>	9.212	1.93E-59	7.006	6.59E-74
<i>CACNA2D2</i>	4.203	0.005571	3.823	0.009635
<i>ITGAL</i>	4.203	0.005571	3.152	0.04812
<i>CTD-2368P22.1</i>	4.174	0.005136	4.766	0.0003349
<i>TBPL2</i>	3.958	0.00813	3.536	0.02299
<i>RASSF10</i>	3.955	0.007688	3.152	0.04812
<i>NTRK1</i>	3.789	0.03307	3.159	0.0477
<i>EPHB6</i>	3.726	0.01686	3.152	0.04812
<i>ANKRD35</i>	3.721	0.01552	3.152	0.04812
<i>LST1</i>	3.712	0.01482	4.067	0.004603
<i>DRD5</i>	3.429	0.03271	3.145	0.04853
<i>C9orf66</i>	3.429	0.03271	3.823	0.009643
<i>UCA1</i>	3.419	0.03319	3.536	0.02299
<i>RP11-53I6.2</i>	3.412	0.03352	3.152	0.04812
<i>ANGPTL4</i>	3.349	1.81E-24	1.758	0.000581
<i>CACNG2</i>	3.328	0.0005074	3.015	0.003365
<i>SPNS3</i>	2.526	0.01771	2.882	0.006188
<i>GRIA2</i>	2.511	0.02074	2.368	0.046

<i>C3orf70</i>	2.408	0.01089	2.112	0.03453
<i>PSMA1</i>	2.349	2.49E-07	1.557	0.001565
<i>C11orf96</i>	2.174	0.004845	1.848	0.03809
<i>WISP2</i>	2.171	0.02766	2.484	0.01417
<i>FCER1G</i>	2.169	0.00455	2.233	0.006786
<i>CRIL</i>	2.1	0.01268	1.947	0.01865
<i>ZFP92</i>	1.983	0.0003074	1.278	0.04492
<i>SHANK1</i>	1.966	0.0433	2.167	0.004637
<i>IL20</i>	1.907	0.0194	1.569	0.04919
<i>HSFX1</i>	1.809	0.003687	1.277	0.04746
<i>PCDHB7</i>	1.654	0.009733	1.41	0.04346
<i>POC1B- GALNT4</i>	1.443	0.0007195	1.037	0.004465
<i>ZBTB20</i>	1.277	0.005525	1.017	0.02089
<i>AC092835.2</i>	1.133	0.04598	1.138	0.04548
<i>LTF</i>	-1.05	0.0449	-1.383	0.01431
<i>AMY2B</i>	-1.169	0.002614	-1.234	0.0039
<i>PPP1R32</i>	-1.211	0.02267	-1.189	0.02887
<i>CNKSRI</i>	-1.214	0.04183	-1.832	0.00408
<i>C2orf82</i>	-1.322	0.01063	-1.379	0.01419
<i>KIAA1211L</i>	-1.448	0.002013	-1.449	0.003211
<i>TNFRSF13C</i>	-1.376	0.01473	-1.371	0.02129
<i>FAM46B</i>	-1.57	0.002611	-1.056	0.03559
<i>GUCY1A3</i>	-1.597	0.02426	-1.653	0.0273
<i>SMIM6</i>	-1.636	0.04648	-2.284	0.01662
<i>TNNC2</i>	-1.707	0.04362	-2.053	0.03153
<i>KIAA1755</i>	-1.764	0.004449	-1.995	0.002455
<i>PSG3</i>	-1.77	0.003053	-1.256	0.02884
<i>SCIN</i>	-1.821	0.0007857	-1.442	0.004811
<i>WNT10A</i>	-1.883	8.99E-05	-1.272	0.00302
<i>LINC00173</i>	-1.9	0.04774	-2.456	0.04463
<i>TPBGL</i>	-2.022	0.01396	-2.666	0.02642
<i>UPB1</i>	-2.079	0.02591	-3.902	0.01383
<i>KRT38</i>	-2.197	0.000145	-1.06	0.0372
<i>FAM9C</i>	-2.256	0.01471	-2.013	0.0328
<i>PGBD3</i>	-2.32	0.0002951	-1.892	0.001937
<i>PCSK9</i>	-2.797	0.02101	-3.872	0.01394
<i>CTD-2510F5.6</i>	-2.825	0.001167	-2.076	0.01147
<i>RNA5-8S5</i>	-2.996	0.00016	-2.141	0.01783
<i>SLC6A7</i>	-3.299	0.03241	-2.948	0.006268
<i>OCM</i>	-3.299	0.03241	-3.08	0.002503
<i>CD7</i>	-3.301	0.03233	-3.176	0.04435
<i>SYNDIG1</i>	-3.301	0.03233	-3.18	0.04411
<i>PPP1R1B</i>	-3.301	0.03233	-3.185	0.04385
<i>FGF17</i>	-3.31	0.03196	-3.185	0.04387
<i>C1orf234</i>	-3.31	0.03196	-3.19	0.04361
<i>LRP2</i>	-3.31	0.03196	-3.19	0.04361

<i>HIST1H2BB</i>	-3.312	0.03189	-3.19	0.04361
<i>ANO1</i>	-3.312	0.03189	-3.194	0.04337
<i>CALR3</i>	-3.455	0.001213	-3.56	0.02072
<i>HSD17B2</i>	-3.68	0.01406	-3.556	0.02086
<i>TMED6</i>	-3.692	0.01378	-3.565	0.02057
<i>LCK</i>	-3.835	1.33E-05	-3.862	0.009168
<i>ZNF423</i>	-3.984	0.005479	-3.869	0.009268
<i>HIST1H3C</i>	-4.24	0.002407	-2.67	0.02694
<i>TMC5</i>	-4.244	0.003536	-3.569	0.02043
<i>AC003002.6</i>	-2.634	1.78E-06	1.333	0.04371
<i>ACTC1</i>	-2.283	5.04E-07	-2.485	0.00128
<i>AMHR2</i>	-4.545	0.0005025	-1.814	0.04454
<i>ANGPTL4</i>	3.548	2.12E-31	1.758	0.000581
<i>ANO1</i>	3.637	0.02017	-3.194	0.04337
<i>AWAT2</i>	-2.809	0.00292	-1.648	0.02135
<i>C11orf96</i>	1.683	0.02472	1.848	0.03809
<i>C2orf82</i>	1.26	0.01949	-1.379	0.01419
<i>C4orf48</i>	-1.7	8.62E-05	1.883	0.02336
<i>CBX2</i>	-3.369	5.17E-25	7.006	6.59E-74
<i>CELA1</i>	-3.782	0.009228	-3.56	0.02072
<i>CRIL</i>	1.778	0.03333	1.947	0.01865
<i>DNAJC15</i>	-1.383	3.14E-05	-1.001	0.02711
<i>DRD5</i>	3.884	0.0113	3.145	0.04853
<i>EFHB</i>	-1.696	0.03258	-3.19	0.04361
<i>FAM25A</i>	-3.405	0.02356	-3.862	0.008198
<i>FAM46B</i>	-1.666	0.000135	-1.056	0.03559
<i>FAM47C</i>	3.637	0.02016	-3.185	0.04387
<i>FCER1G</i>	1.988	0.0404	2.233	0.006786
<i>GPBAR1</i>	2.202	0.04275	-3.56	0.02072
<i>GRIN1</i>	-3.404	0.02358	3.159	0.0477
<i>GSTA1</i>	-4.471	1.35E-21	-1.462	0.04478
<i>HIST1H3C</i>	-3.316	0.0009261	-2.67	0.02694
<i>HRCT1</i>	-1.493	0.001976	-1.379	0.005124
<i>HSFX1</i>	1.327	0.02097	1.277	0.04746
<i>IL20</i>	2.458	0.000405	1.569	0.04919
<i>KCNA4</i>	-3.014	0.003053	-2.638	0.02795
<i>KIAA1755</i>	1.926	0.0007454	-1.995	0.002455
<i>KIF26A</i>	-2.617	0.01584	2.192	0.01322
<i>KREMEN2</i>	-4.085	0.003122	2.423	0.04654
<i>KRT38</i>	-1.846	0.002171	-1.06	0.0372
<i>LAMA5</i>	-1.649	5.09E-07	1.019	0.03744
<i>LDLRAD2</i>	-1.321	0.03787	1.582	0.0455
<i>LGI3</i>	-1.343	0.0134	-1.396	0.03242
<i>LINC00173</i>	-2.072	0.03009	-2.456	0.04463
<i>LYL1</i>	-1.512	0.007228	1.547	0.03294
<i>MS4A4E</i>	-1.085	0.02469	1.65	0.03346

<i>NYNRIN</i>	-2.406	0.0001365	-3.194	0.04337
<i>PCED1B-AS1</i>	-2.416	0.007799	-3.858	0.01091
<i>PCSKIN</i>	-2.067	0.02771	2.859	0.002868
<i>POTEE</i>	-1.57	2.31E-07	-1.397	0.01589
<i>PRKCG</i>	-2.379	0.04494	4.067	0.004605
<i>PSG3</i>	-1.962	0.001165	-1.256	0.02884
<i>RIPPLY1</i>	3.637	0.02016	-1.794	0.03503
<i>RNA5-8S5</i>	-2.115	0.02804	-2.141	0.01783
<i>RNASE7</i>	1.701	0.0162	-2.896	0.002375
<i>RP11-5A19.5</i>	-1.702	0.004509	1.521	0.01883
<i>RP11-795F19.5</i>	2.201	0.0456	-1.858	0.0493
<i>SCIN</i>	-2.308	8.93E-10	-1.442	0.004811
<i>SCN2B</i>	-3.015	0.003471	3.145	0.04853
<i>SHANK1</i>	1.488	0.004142	2.167	0.004637
<i>SLC35F3</i>	3.352	0.03966	-3.547	0.02114
<i>SLC39A12</i>	-2.374	0.03775	-3.135	0.01599
<i>SLC8A2</i>	2.191	0.04975	3.152	0.04811
<i>SMIM6</i>	-5.515	7.67E-07	-2.284	0.01662
<i>SPANXN4</i>	3.883	0.01119	-3.56	0.02073
<i>SULT2B1</i>	-2.368	0.03988	-3.19	0.04361
<i>TMPRSS7</i>	4.578	0.00102	-2.45	0.0288
<i>TNFRSF13C</i>	-1.198	0.01294	-1.371	0.02129
<i>TUBB3</i>	-2.183	1.85E-15	1.682	0.0055
<i>UNC13A</i>	1.833	0.01631	-3.858	0.01092
<i>UPB1</i>	-2.572	1.38E-05	-3.902	0.01383
<i>WISP2</i>	-1.531	0.02175	2.484	0.01417
<i>WNT10A</i>	-2.737	2.43E-09	-1.272	0.00302
<i>ZFP92</i>	2.039	0.0001629	1.278	0.04492
<i>ZNF423</i>	-5.941	1.59E-07	-3.869	0.009268
<i>AC14013271.3</i>	-1.648	0.03464	4.279	0.003955
<i>AC084219.2</i>	1.716	0.001926	1.503	0.005737
<i>ACTA2</i>	-1.296	1.50E-07	-2.881	6.12E-24
<i>ADGRG2</i>	-2.853	0.009077	-2.875	0.02387
<i>AMY2B</i>	-1.169	0.002614	1.153	0.02888
<i>ANO1</i>	-3.312	0.03189	3.711	0.02886
<i>ARL14</i>	-1.771	0.01926	2.744	0.01064
<i>ATOH8</i>	-1.071	0.009478	-1.378	5.48E-06
<i>C4BPA</i>	-3.685	0.01394	-4.255	0.005347
<i>C5orf46</i>	-1.321	0.01304	-2.044	0.03887
<i>COL1A1</i>	-1.232	0.0005872	-1.352	4.91E-05
<i>COL21A1</i>	-1.538	0.01212	1.638	0.03519
<i>CRB2</i>	-4.234	0.001967	-2.096	0.04385
<i>CXCR4</i>	1.343	0.0003691	3.366	1.46E-05
<i>DNAH10</i>	4.156	0.006781	-4.018	0.009874
<i>DOK7</i>	-2.431	0.04148	-2.843	0.01093
<i>ELF3</i>	-1.976	0.0008051	-1.065	0.03898

<i>ERMN</i>	-1.53	0.02089	-2.264	0.01634
<i>ESM1</i>	1.448	2.83E-07	1.353	0.02046
<i>FAM26D</i>	3.387	0.03467	-3.596	0.003004
<i>FCGR2A</i>	-1.2	0.006833	2.15	0.003694
<i>FGF18</i>	-1.763	0.04242	-3.345	0.006421
<i>FOS</i>	1.382	1.55E-05	1.185	0.03755
<i>GPR132</i>	-3.17	6.85E-05	3.769	0.02856
<i>HIST1H3C</i>	-4.24	0.002407	-3.113	0.01448
<i>HSPB3</i>	-1.19	0.00201	-1.255	0.006432
<i>IL33</i>	1.223	5.39E-06	2.764	2.40E-12
<i>KLHDC8A</i>	-1.088	0.02374	1.499	0.02878
<i>LMOD1</i>	-1.06	0.0003172	-2.067	2.77E-16
<i>LRRC4</i>	2.059	0.03185	-3.325	0.04107
<i>MRVII</i>	-1.001	0.002205	-1.155	0.003098
<i>NEUROD1</i>	3.956	0.007531	-4.25	0.005348
<i>NKD1</i>	-1.713	0.01058	3.091	0.01725
<i>NLRP10</i>	1.224	0.04764	-3.546	0.0003808
<i>PGBD3</i>	-2.32	0.0002951	-1.839	0.04387
<i>PIK3C2G</i>	3.419	0.03319	-3.329	0.04091
<i>PTGES3L</i>	-1.058	0.03829	-1.904	0.04908
<i>RAB40AL</i>	3.394	0.03434	3.654	0.03382
<i>RN7SL1</i>	-1.204	0.01714	-1.404	0.0008274
<i>RNA5-8S5</i>	-2.996	0.00016	-4.375	0.0002248
<i>RORA</i>	1.099	0.0009858	1.041	0.01541
<i>RP11-5316.2</i>	3.412	0.03352	-3.359	0.03948
<i>SERPINB4</i>	-1.637	0.04107	4.024	0.00797
<i>SLC22A13</i>	2.375	0.03352	3.246	0.01893
<i>SLC35F4</i>	-3.31	0.03196	3.878	0.02579
<i>SOGA3</i>	1.008	0.02311	2.595	0.001124
<i>SOX3</i>	-2.458	0.03017	-3.133	0.02802
<i>SRL</i>	-3.675	0.01417	-3.135	0.02151
<i>TMEM132B</i>	1.361	0.000269	1.194	0.02967
<i>TRIM29</i>	-1.055	0.011	-1.208	0.00435

Table 2. 481 overlapped targets: RNA seq *CBX2.1* Versus RNA seq *CBX2.2*

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