

Gene 1		Gene 2		SINaTRA Score
ID	Symbol	ID	Symbol	
28998	MRPL13	65080	MRPL44	0.962
28998	MRPL13	23256	SCFD1	0.954
5983	RFC3	5981	RFC1	0.965
5983	RFC3	5884	RAD17	0.98
5983	RFC3	23476	BRD4	0.974
83540	NUF2	11130	ZWINT	0.968
273	AMPH	10188	TNK2	0.971
273	AMPH	6453	ITSN1	0.954
273	AMPH	160	AP2A1	0.951
273	AMPH	50618	ITSN2	0.953
273	AMPH	1785	DNM2	0.966
273	AMPH	23523	CABIN1	0.961
9525	VPS4B	10534	SSSCA1	0.968
9525	VPS4B	9736	USP34	0.957
9525	VPS4B	7298	TYMS	0.966
9525	VPS4B	8882	ZNF259	0.96
9525	VPS4B	9559	VPS26A	0.954
9525	VPS4B	283237	TTC9C	0.972
9525	VPS4B	10277	UBE4B	0.959
9527	GOSR1	6811	STX5	0.959
9252	RPS6KA5	51776	ZAK	0.956
84126	ATRIP	11073	TOPBP1	0.98
10892	MALT1	84433	CARD11	0.967
10892	MALT1	5588	PRKCQ	0.977
10892	MALT1	9099	USP2	0.979
22878	KIAA1012	83696	TRAPPC9	0.961
29763	PACSIN3	7456	WIPF1	0.982
29763	PACSIN3	7454	WAS	0.963
29763	PACSIN3	6453	ITSN1	0.966
29763	PACSIN3	1785	DNM2	0.968
23054	NCOA6	9757	MLL4	0.969
23054	NCOA6	51586	MED15	0.964
7185	TRAF1	8717	TRADD	0.96
7185	TRAF1	8737	RIPK1	0.957
7185	TRAF1	55072	RNF31	0.958
7185	TRAF1	9020	MAP3K14	0.952
7185	TRAF1	8837	CFLAR	0.951
7185	TRAF1	10616	RBCK1	0.95
7187	TRAF3	8737	RIPK1	0.957
7187	TRAF3	4591	TRIM37	0.962
7187	TRAF3	4804	NGFR	0.955
7187	TRAF3	4615	MYD88	0.95
7187	TRAF3	868	CBLB	0.962

7187 TRAF3	10133 OPTN	0.954
7187 TRAF3	51567 TTRAP	0.955
7456 WIPF1	7454 WAS	0.951
7456 WIPF1	11252 PACSIN2	0.979
7454 WAS	3702 ITK	0.964
7453 WARS	158 ADSL	0.965
7453 WARS	56474 CTPS2	0.963
7453 WARS	9329 GTF3C4	0.964
7453 WARS	7511 XPNPEP1	0.975
65080 MRPL44	65005 MRPL9	0.976
65080 MRPL44	54534 MRPL50	0.967
65080 MRPL44	28977 MRPL42	0.958
65080 MRPL44	64975 MRPL41	0.956
65080 MRPL44	64978 MRPL38	0.962
55626 AMBRA1	1468 SLC25A10	0.956
55626 AMBRA1	57521 RPTOR	0.954
55626 AMBRA1	23192 ATG4B	0.95
55626 AMBRA1	8408 ULK1	0.965
2319 FLOT2	11160 ERLIN2	0.975
2319 FLOT2	10211 FLOT1	0.954
65260 C1orf163	57466 SFRS15	0.966
4729 NDUFV2	4728 NDUFS8	0.969
4729 NDUFV2	4720 NDUFS2	0.969
4729 NDUFV2	4722 NDUFS3	0.961
4729 NDUFV2	4723 NDUFV1	0.952
4726 NDUFS6	4720 NDUFS2	0.96
4720 NDUFS2	4722 NDUFS3	0.964
4720 NDUFS2	4723 NDUFV1	0.955
4722 NDUFS3	4723 NDUFV1	0.958
11284 PNKP	3980 LIG3	0.953
11284 PNKP	7518 XRCC4	0.95
51100 SH3GLB1	26128 KIAA1279	0.951
51100 SH3GLB1	3267 AGFG1	0.952
51100 SH3GLB1	5528 PPP2R5D	0.956
10392 NOD1	8767 RIPK2	0.957
10393 ANAPC10	11065 UBE2C	0.951
10393 ANAPC10	9232 PTTG1	0.97
10393 ANAPC10	10297 APC2	0.971
6810 STX4	6844 VAMP2	0.958
6810 STX4	8673 VAMP8	0.974
6810 STX4	9217 VAPB	0.966
6810 STX4	8773 SNAP23	0.976
6810 STX4	8775 NAPA	0.958
6817 SULT1A1	7169 TPM2	0.957
6817 SULT1A1	7320 UBE2B	0.95
6817 SULT1A1	7347 UCHL3	0.952

6817 SULT1A1	146691 TOM1L2	0.952
6817 SULT1A1	7171 TPM4	0.95
6817 SULT1A1	11075 STMN2	0.95
9757 MLL4	9070 ASH2L	0.95
8848 TSC22D1	4091 SMAD6	0.966
8915 BCL10	7132 TNFRSF1A	0.953
1762 DMWD	23239 PHLPP1	0.953
58533 SNX6	3020 H3F3A	0.954
58533 SNX6	5074 PAWR	0.988
58533 SNX6	10533 ATG7	0.979
58533 SNX6	327 APEH	0.975
58533 SNX6	6470 SHMT1	0.981
58533 SNX6	6642 SNX1	0.967
58533 SNX6	8723 SNX4	0.956
58533 SNX6	81611 ANP32E	0.95
58533 SNX6	55737 VPS35	0.955
58533 SNX6	64855 FAM129B	0.957
58533 SNX6	51699 VPS29	0.961
8717 TRADD	7124 TNF	0.958
8717 TRADD	355 FAS	0.967
8717 TRADD	7133 TNFRSF1B	0.965
79705 LRRK1	3635 INPP5D	0.965
79705 LRRK1	6654 SOS1	0.97
79705 LRRK1	613 BCR	0.956
9520 NPEPPS	6197 RPS6KA3	0.965
6778 STAT6	8648 NCOA1	0.958
6774 STAT3	960 CD44	0.951
6776 STAT5A	2057 EPOR	0.963
6777 STAT5B	3643 INSR	0.967
6777 STAT5B	58490 RPRD1B	0.963
9968 MED12	7067 THRA	0.957
9968 MED12	80306 MED28	0.955
9969 MED13	79991 OBFC1	0.95
9969 MED13	9325 TRIP4	0.976
9969 MED13	9444 QKI	0.95
3891 KRT85	9101 USP8	0.968
84108 PCGF6	23269 MGA	0.964
84108 PCGF6	7027 TFDP1	0.957
84108 PCGF6	1876 E2F6	0.958
64928 MRPL14	51069 MRPL2	0.954
22818 COPZ1	1729 DIAPH1	0.951
22818 COPZ1	3831 KLC1	0.961
22818 COPZ1	26958 COPG2	0.959
22818 COPZ1	7090 TLE3	0.961
112939 NACC1	54880 BCOR	0.956
10188 TNK2	9564 BCAR1	0.979

10188 TNK2	6478 SIAH2	0.951
10188 TNK2	7525 YES1	0.957
10188 TNK2	5159 PDGFRB	0.969
1155 TBCB	23071 ERP44	0.971
1155 TBCB	4643 MYO1E	0.951
23071 ERP44	10979 FERMT2	0.969
23071 ERP44	5062 PAK2	0.971
23071 ERP44	11235 PDCD10	0.962
23071 ERP44	5198 PFAS	0.953
112869 CCDC101	51562 MBIP	0.959
29127 RACGAP1	23164 MPRIP	0.969
29127 RACGAP1	9493 KIF23	0.957
8520 HAT1	8314 BAP1	0.97
4299 AFF1	4297 MLL	0.981
4299 AFF1	10614 HEXIM1	0.979
4299 AFF1	23476 BRD4	0.97
4299 AFF1	904 CCNT1	0.969
4297 MLL	904 CCNT1	0.965
4297 MLL	9070 ASH2L	0.953
4296 MAP3K11	6416 MAP2K4	0.955
4296 MAP3K11	5609 MAP2K7	0.964
23380 SRGAP2	55763 EXOC1	0.954
81567 TXNDC5	9689 BZW1	0.951
55644 OSGEP	7165 TPD52L2	0.971
55644 OSGEP	26128 KIAA1279	0.95
55644 OSGEP	8882 ZNF259	0.973
55644 OSGEP	51002 TPRKB	0.975
55644 OSGEP	573 BAG1	0.95
55644 OSGEP	58490 RPRD1B	0.957
55644 OSGEP	60491 NIF3L1	0.965
55644 OSGEP	8270 LAGE3	0.971
55644 OSGEP	64175 LEPRE1	0.965
55644 OSGEP	26136 TES	0.972
55644 OSGEP	51569 UFM1	0.965
55644 OSGEP	10055 SAE1	0.953
5867 RAB4A	79874 RABEP2	0.964
5861 RAB1A	4860 PNP	0.958
5861 RAB1A	8766 RAB11A	0.95
5861 RAB1A	136319 MTPN	0.956
5861 RAB1A	7879 RAB7A	0.964
5861 RAB1A	9230 RAB11B	0.971
5861 RAB1A	523 ATP6V1A	0.959
5861 RAB1A	2665 GDI2	0.978
2186 BPTF	6594 SMARCA1	0.954
2189 FANCG	675 BRCA2	0.967
57646 USP28	8314 BAP1	0.959

57646 USP28	64219 PJA1	0.951
57646 USP28	8078 USP5	0.954
57646 USP28	23032 USP33	0.986
57646 USP28	7347 UCHL3	0.967
57646 USP28	8027 STAM	0.959
57646 USP28	9101 USP8	0.966
57646 USP28	63967 CLSPN	0.954
159 ADSS	9948 WDR1	0.967
159 ADSS	3417 IDH1	0.964
159 ADSS	3336 HSPE1	0.968
159 ADSS	6888 TALDO1	0.958
159 ADSS	29082 CHMP4A	0.956
159 ADSS	54108 CHRAC1	0.96
159 ADSS	5763 PTMS	0.975
159 ADSS	1633 DCK	0.976
158 ADSL	22978 NT5C2	0.962
158 ADSL	55666 NPLOC4	0.964
158 ADSL	10226 PLIN3	0.969
158 ADSL	8539 API5	0.97
158 ADSL	7511 XPNPEP1	0.96
158 ADSL	29978 UBQLN2	0.97
158 ADSL	10785 WDR4	0.966
158 ADSL	10055 SAE1	0.968
6900 CNTN2	4801 NFYB	0.97
9191 DEDD	8837 CFLAR	0.955
9191 DEDD	843 CASP10	0.951
6238 RRBP1	58477 SRPRB	0.966
6238 RRBP1	10084 PQBP1	0.962
6238 RRBP1	5937 RBMS1	0.973
6238 RRBP1	4701 NDUFA7	0.957
91 ACVR1B	4091 SMAD6	0.965
8861 LDB1	51592 TRIM33	0.966
8861 LDB1	6886 TAL1	0.961
811 CALR	6455 SH3GL1	0.954
813 CALU	51194 IPO11	0.952
813 CALU	10094 ARPC3	0.971
815 CAMK2A	5071 PARK2	0.959
57132 CHMP1B	51510 CHMP5	0.965
11130 ZWINT	79003 MIS12	0.952
11130 ZWINT	79980 DSN1	0.964
11130 ZWINT	10403 NDC80	0.972
3020 H3F3A	10951 CBX1	0.95
3020 H3F3A	55723 ASF1B	0.95
55726 C12orf11	26173 INTS1	0.956
8737 RIPK1	7188 TRAF5	0.971
8737 RIPK1	7128 TNFAIP3	0.956

8737 RIPK1	7124 TNF	0.957
8737 RIPK1	1540 CYLD	0.964
8737 RIPK1	331 XIAP	0.953
8737 RIPK1	355 FAS	0.979
8737 RIPK1	64127 NOD2	0.969
8737 RIPK1	8837 CFLAR	0.963
8737 RIPK1	8767 RIPK2	0.959
8737 RIPK1	8887 TAX1BP1	0.967
8737 RIPK1	843 CASP10	0.978
8737 RIPK1	841 CASP8	0.955
8737 RIPK1	26133 TRPC4AP	0.962
8737 RIPK1	148022 TICAM1	0.968
8737 RIPK1	7132 TNFRSF1A	0.957
8737 RIPK1	329 BIRC2	0.964
8737 RIPK1	10616 RBCK1	0.974
8737 RIPK1	10133 OPTN	0.983
8737 RIPK1	7335 UBE2V1	0.96
8737 RIPK1	11035 RIPK3	0.98
8737 RIPK1	8795 TNFRSF10B	0.951
8737 RIPK1	23118 TAB2	0.959
8737 RIPK1	9099 USP2	0.974
8737 RIPK1	8772 FADD	0.959
4199 ME1	6904 TBCD	0.951
4199 ME1	7358 UGDH	0.963
55120 FANCL	2176 FANCC	0.962
55120 FANCL	2177 FANCD2	0.95
55120 FANCL	3280 HES1	0.963
23244 PDS5A	23063 WAPAL	0.97
23244 PDS5A	10274 STAG1	0.97
27005 USP21	57787 MARK4	0.959
27005 USP21	23032 USP33	0.968
27005 USP21	2011 MARK2	0.968
27005 USP21	7347 UCHL3	0.956
27005 USP21	10616 RBCK1	0.973
27005 USP21	57159 TRIM54	0.955
27005 USP21	9099 USP2	0.977
9948 WDR1	3336 HSPE1	0.957
9948 WDR1	5763 PTMS	0.955
9948 WDR1	4830 NME1	0.97
56474 CTPS2	10226 PLIN3	0.959
57787 MARK4	2011 MARK2	0.955
57787 MARK4	50855 PARD6A	0.967
140576 S100A16	9217 VAPB	0.97
140576 S100A16	8803 SUCLA2	0.961
5074 PAWR	327 APEH	0.967
5074 PAWR	6470 SHMT1	0.968

5074 PAWR	833 CARS	0.972
5074 PAWR	6643 SNX2	0.966
5074 PAWR	5496 PPM1G	0.959
5074 PAWR	51699 VPS29	0.964
9564 BCAR1	5829 PXN	0.953
9564 BCAR1	3932 LCK	0.974
9564 BCAR1	5782 PTPN12	0.955
9564 BCAR1	4867 NPHP1	0.952
9564 BCAR1	7205 TRIP6	0.951
9564 BCAR1	10525 HYOU1	0.954
9564 BCAR1	23607 CD2AP	0.957
9564 BCAR1	1399 CRKL	0.952
8500 PPFIA1	5802 PTPRS	0.961
8500 PPFIA1	5528 PPP2R5D	0.953
23013 SPEN	862 RUNX1T1	0.966
26524 LATS2	9113 LATS1	0.952
26524 LATS2	55233 MOBKL1B	0.953
26524 LATS2	84962 JUB	0.964
26524 LATS2	6615 SNAI1	0.952
11160 ERLIN2	7353 UFD1L	0.962
11160 ERLIN2	3638 INSIG1	0.969
11160 ERLIN2	79139 DERL1	0.963
11160 ERLIN2	84447 SYVN1	0.953
7188 TRAF5	4591 TRIM37	0.956
7188 TRAF5	63893 UBE2O	0.968
7188 TRAF5	9020 MAP3K14	0.962
7188 TRAF5	4804 NGFR	0.95
7188 TRAF5	148022 TICAM1	0.975
7188 TRAF5	51567 TTRAP	0.965
7188 TRAF5	10293 TRAI	0.959
56647 BCCIP	8942 KYNU	0.96
56647 BCCIP	55577 NAGK	0.955
79991 OBFC1	9440 MED17	0.95
79991 OBFC1	9442 MED27	0.97
79991 OBFC1	10025 MED16	0.955
79991 OBFC1	10001 MED6	0.959
79991 OBFC1	9439 MED23	0.96
51147 ING4	79960 PHF17	0.964
51147 ING4	64769 MEAF6	0.96
6258 RXRG	84962 JUB	0.96
10533 ATG7	27430 MAT2B	0.953
10533 ATG7	6642 SNX1	0.953
10533 ATG7	64422 ATG3	0.968
10533 ATG7	6904 TBCD	0.956
10534 SSSCA1	10460 TACC3	0.962
10534 SSSCA1	29978 UBQLN2	0.968

10539 GLRX3	3417 IDH1	0.971
10539 GLRX3	79180 EFHD2	0.95
3476 IGBP1	25824 PRDX5	0.954
835 CASP2	637 BID	0.971
835 CASP2	843 CASP10	0.967
835 CASP2	841 CASP8	0.954
835 CASP2	840 CASP7	0.969
8881 CDC16	51592 TRIM33	0.95
8881 CDC16	4085 MAD2L1	0.959
8881 CDC16	26271 FBXO5	0.959
8881 CDC16	10297 APC2	0.952
8883 NAE1	5910 RAP1GDS1	0.966
8883 NAE1	5049 PAFAH1B2	0.964
8883 NAE1	5504 PPP1R2	0.977
80854 SETD7	6879 TAF7	0.973
80854 SETD7	6878 TAF6	0.972
1729 DIAPH1	3831 KLC1	0.967
9459 ARHGEF6	7046 TGFBR1	0.953
9459 ARHGEF6	8874 ARHGEF7	0.972
55339 WDR33	81608 FIP1L1	0.95
6416 MAP2K4	5608 MAP2K6	0.952
6416 MAP2K4	5601 MAPK9	0.966
6416 MAP2K4	5602 MAPK10	0.963
6416 MAP2K4	5609 MAP2K7	0.969
8315 BRAP	3265 HRAS	0.98
8315 BRAP	5604 MAP2K1	0.988
8315 BRAP	7375 USP4	0.952
8315 BRAP	673 BRAF	0.953
8312 AXIN1	1855 DVL1	0.96
6738 TROVE2	7360 UGP2	0.955
8318 CDC45L	23594 ORC6L	0.958
8318 CDC45L	23595 ORC3L	0.972
8318 CDC45L	5001 ORC5L	0.973
8318 CDC45L	55388 MCM10	0.972
9929 JOSD1	57159 TRIM54	0.955
215 ABCD1	5825 ABCD3	0.958
327 APEH	6470 SHMT1	0.952
327 APEH	833 CARS	0.956
327 APEH	22824 HSPA4L	0.956
327 APEH	10059 DNMT1L	0.974
3643 INSR	10451 VAV3	0.966
3643 INSR	9021 SOCS3	0.975
3643 INSR	8660 IRS2	0.958
3643 INSR	8651 SOCS1	0.971
2551 GABPA	6670 SP3	0.978
64969 MRPS5	60488 MRPS35	0.951

915 CD3D	79139 DERL1	0.959
64219 PJA1	7347 UCHL3	0.954
7169 TPM2	7170 TPM3	0.952
7163 TPD52	7165 TPD52L2	0.98
7165 TPD52L2	4234 METTL1	0.964
7165 TPD52L2	5202 PFDN2	0.966
7165 TPD52L2	80755 AARSD1	0.975
7165 TPD52L2	51194 IPO11	0.967
7165 TPD52L2	5528 PPP2R5D	0.986
7165 TPD52L2	10096 ACTR3	0.955
7165 TPD52L2	29978 UBQLN2	0.969
7165 TPD52L2	10055 SAE1	0.956
7165 TPD52L2	10552 ARPC1A	0.969
8078 USP5	523 ATP6V1A	0.95
637 BID	5599 MAPK8	0.952
637 BID	598 BCL2L1	0.952
637 BID	355 FAS	0.968
637 BID	836 CASP3	0.956
637 BID	843 CASP10	0.952
637 BID	841 CASP8	0.953
637 BID	7132 TNFRSF1A	0.959
637 BID	4170 MCL1	0.958
637 BID	8795 TNFRSF10B	0.959
637 BID	8772 FADD	0.969
3996 LLGL1	5584 PRKCI	0.957
23032 USP33	9738 CP110	0.959
23032 USP33	84676 TRIM63	0.963
23032 USP33	57159 TRIM54	0.96
23032 USP33	84461 NEURL4	0.953
23644 EDC4	167227 DCP2	0.961
23644 EDC4	4836 NMT1	0.956
23133 PHF8	9070 ASH2L	0.962
5825 ABCD3	5824 PEX19	0.95
5825 ABCD3	53918 PELO	0.956
10452 TOMM40	56993 TOMM22	0.962
10452 TOMM40	51119 SBDS	0.952
196 AHR	2963 GTF2F2	0.958
10458 BAIAP2	2011 MARK2	0.96
10458 BAIAP2	3831 KLC1	0.955
10458 BAIAP2	89953 KLC4	0.966
10458 BAIAP2	5062 PAK2	0.957
10458 BAIAP2	501 ALDH7A1	0.957
10458 BAIAP2	10298 PAK4	0.952
10458 BAIAP2	995 CDC25C	0.976
10101 NUBP2	5721 PSME2	0.959
10101 NUBP2	5202 PFDN2	0.968

10101 NUBP2	7320 UBE2B	0.95
10101 NUBP2	11344 TWF2	0.951
10101 NUBP2	10226 PLIN3	0.954
10101 NUBP2	11328 FKBP9	0.956
10101 NUBP2	55239 OGFOD1	0.958
10101 NUBP2	25824 PRDX5	0.955
10101 NUBP2	134492 NUDCD2	0.955
10101 NUBP2	8539 API5	0.951
10101 NUBP2	54926 UBE2R2	0.95
10101 NUBP2	7511 XPNPEP1	0.958
10101 NUBP2	29978 UBQLN2	0.955
10101 NUBP2	7336 UBE2V2	0.952
10101 NUBP2	9296 ATP6V1F	0.955
10101 NUBP2	11034 DSTN	0.966
10101 NUBP2	10802 SEC24A	0.951
10101 NUBP2	55236 UBA6	0.963
2768 GNA12	2931 GSK3A	0.961
9150 CTDP1	9325 TRIP4	0.96
9150 CTDP1	23476 BRD4	0.95
9736 USP34	29978 UBQLN2	0.958
9736 USP34	10802 SEC24A	0.95
9738 CP110	8924 HERC2	0.958
857 CAV1	355 FAS	0.952
857 CAV1	960 CD44	0.961
84759 PCGF1	23429 RYBP	0.955
5226 PGD	501 ALDH7A1	0.965
8900 CCNA1	51343 FZR1	0.953
54732 TMED9	9554 SEC22B	0.969
3069 HDLBP	51028 VPS36	0.962
26173 INTS1	5437 POLR2H	0.968
26173 INTS1	23613 ZMYND8	0.977
26173 INTS1	54973 CPSF3L	0.964
26173 INTS1	5519 PPP2R1B	0.95
26173 INTS1	55756 INTS9	0.955
6478 SIAH2	6497 SKI	0.971
6472 SHMT2	6642 SNX1	0.952
6470 SHMT1	833 CARS	0.965
6470 SHMT1	3035 HARS	0.955
6470 SHMT1	7265 TTC1	0.953
6470 SHMT1	51699 VPS29	0.966
6477 SIAH1	51132 RLIM	0.955
3665 IRF7	7128 TNFAIP3	0.954
3665 IRF7	8772 FADD	0.952
3667 IRS1	5336 PLCG2	0.953
3667 IRS1	5290 PIK3CA	0.969
3663 IRF5	2873 GPS1	0.957

150684 COMMD1	5971 RELB	0.961
4437 MSH3	5883 RAD9A	0.984
4437 MSH3	5810 RAD1	0.98
4437 MSH3	5395 PMS2	0.986
4437 MSH3	84464 BTBD12	0.967
90390 MED30	5435 POLR2F	0.955
8085 MLL2	80335 WDR82	0.958
8085 MLL2	7403 KDM6A	0.952
8085 MLL2	9070 ASH2L	0.963
8924 HERC2	7337 UBE3A	0.953
57082 CASC5	10403 NDC80	0.954
4236 MFAP1	79753 SNIP1	0.971
4234 METTL1	55666 NPLOC4	0.962
4234 METTL1	1810 DR1	0.961
4234 METTL1	51194 IPO11	0.966
4233 MET	23624 CBLC	0.95
4233 MET	6654 SOS1	0.976
5590 PRKCZ	50855 PARD6A	0.953
317 APAF1	842 CASP9	0.979
11200 CHEK2	5527 PPP2R5C	0.95
65008 MRPL1	51073 MRPL4	0.957
65003 MRPL11	64978 MRPL38	0.963
65005 MRPL9	11222 MRPL3	0.963
65005 MRPL9	9801 MRPL19	0.953
65005 MRPL9	51069 MRPL2	0.985
27258 LSM3	25804 LSM4	0.95
27258 LSM3	11157 LSM6	0.966
8697 CDC23	56916 SMARCAD1	0.95
8697 CDC23	51592 TRIM33	0.95
8697 CDC23	11065 UBE2C	0.955
8697 CDC23	26271 FBXO5	0.968
10914 PAPOLA	10726 NUDC	0.96
10919 EHMT2	1788 DNMT3A	0.973
7703 PCGF2	1912 PHC2	0.956
7703 PCGF2	23429 RYBP	0.967
7703 PCGF2	10138 YAF2	0.967
26127 FGFR1OP2	85369 FAM40A	0.954
26127 FGFR1OP2	54764 ZRANB1	0.966
81855 SFXN3	94081 SFXN1	0.981
81857 MED25	7067 THRA	0.953
81857 MED25	80306 MED28	0.95
81858 SHARPIN	7124 TNF	0.954
81858 SHARPIN	64127 NOD2	0.953
81858 SHARPIN	10616 RBCK1	0.953
26128 KIAA1279	6455 SH3GL1	0.956
4591 TRIM37	4804 NGFR	0.953

4591 TRIM37	9513 FXR2	0.957
4846 NOS3	2639 GCDH	0.952
5201 PFDN1	5202 PFDN2	0.964
5201 PFDN1	3035 HARS	0.952
5203 PFDN4	5202 PFDN2	0.96
5203 PFDN4	7411 VBP1	0.963
5202 PFDN2	5204 PFDN5	0.965
5202 PFDN2	5516 PPP2CB	0.958
5202 PFDN2	29978 UBQLN2	0.978
5202 PFDN2	7411 VBP1	0.968
5204 PFDN5	4659 PPP1R12A	0.953
5204 PFDN5	7411 VBP1	0.957
6455 SH3GL1	573 BAG1	0.955
6455 SH3GL1	2960 GTF2E1	0.959
6455 SH3GL1	56904 SH3GLB2	0.973
91833 WDR20	23239 PHLPP1	0.962
91833 WDR20	64854 USP46	0.95
55090 MED9	5439 POLR2J	0.96
3956 LGALS1	8624 PSMG1	0.963
8353 HIST1H3E	5252 PHF1	0.97
8353 HIST1H3E	8208 CHAF1B	0.97
8353 HIST1H3E	55723 ASF1B	0.959
5782 PTPN12	7360 UGP2	0.962
116985 ARAP1	3635 INPP5D	0.971
85369 FAM40A	54764 ZRANB1	0.962
85363 TRIM5	4331 MNAT1	0.957
85363 TRIM5	7681 MKRN3	0.95
85363 TRIM5	7336 UBE2V2	0.975
85363 TRIM5	7335 UBE2V1	0.95
85363 TRIM5	22954 TRIM32	0.961
85363 TRIM5	9099 USP2	0.963
6338 SCNN1B	10053 AP1M2	0.961
55666 NPLOC4	10611 PDLIM5	0.954
55666 NPLOC4	10226 PLIN3	0.953
55666 NPLOC4	55197 RPRD1A	0.957
55666 NPLOC4	10785 WDR4	0.952
10451 VAV3	5159 PDGFRB	0.962
23049 SMG1	2935 GSPT1	0.965
152006 RNF38	9666 DZIP3	0.953
152006 RNF38	55905 RNF114	0.954
7124 TNF	355 FAS	0.955
7124 TNF	55072 RNF31	0.966
7124 TNF	7133 TNFRSF1B	0.976
7124 TNF	10616 RBCK1	0.955
7124 TNF	10133 OPTN	0.952
7124 TNF	10318 TNIP1	0.972

598 BCL2L1	578 BAK1	0.954
598 BCL2L1	7159 TP53BP2	0.963
4215 MAP3K3	2011 MARK2	0.952
4216 MAP3K4	9618 TRAF4	0.957
4216 MAP3K4	5609 MAP2K7	0.957
4218 RAB8A	6342 SCP2	0.968
4218 RAB8A	9230 RAB11B	0.965
171568 POLR3H	51082 POLR1D	0.95
1540 CYLD	8975 USP13	0.951
5573 PRKAR1A	11215 AKAP11	0.952
3265 HRAS	5604 MAP2K1	0.951
3265 HRAS	9610 RIN1	0.955
3265 HRAS	5290 PIK3CA	0.966
79590 MRPL24	51069 MRPL2	0.952
79590 MRPL24	84311 MRPL45	0.966
79590 MRPL24	64976 MRPL40	0.961
79590 MRPL24	51253 MRPL37	0.953
79590 MRPL24	51073 MRPL4	0.955
331 XIAP	332 BIRC5	0.954
330 BIRC3	332 BIRC5	0.968
330 BIRC3	55072 RNF31	0.955
330 BIRC3	842 CASP9	0.954
330 BIRC3	9666 DZIP3	0.961
330 BIRC3	7132 TNFRSF1A	0.953
330 BIRC3	27429 HTRA2	0.95
332 BIRC5	842 CASP9	0.985
332 BIRC5	56616 DIABLO	0.952
332 BIRC5	3619 INCENP	0.972
332 BIRC5	55143 CDCA8	0.981
11222 MRPL3	28977 MRPL42	0.966
11222 MRPL3	51073 MRPL4	0.965
11222 MRPL3	124995 MRPL10	0.958
51343 FZR1	9232 PTTG1	0.956
51433 ANAPC5	56916 SMARCAD1	0.952
51433 ANAPC5	51592 TRIM33	0.954
51433 ANAPC5	11065 UBE2C	0.956
51433 ANAPC5	26271 FBXO5	0.95
10938 EHD1	8539 API5	0.955
9443 MED7	6720 SREBF1	0.96
9443 MED7	80306 MED28	0.976
9443 MED7	6837 MED22	0.959
9440 MED17	9325 TRIP4	0.954
8882 ZNF259	7336 UBE2V2	0.958
8882 ZNF259	51569 UFM1	0.951
81876 RAB1B	9230 RAB11B	0.951
2011 MARK2	4140 MARK3	0.956

2011 MARK2	50855 PARD6A	0.982
2011 MARK2	51564 HDAC7	0.969
10592 SMC2	9918 NCAPD2	0.957
10592 SMC2	64151 NCAPG	0.955
54700 RRN3	84172 POLR1B	0.96
27430 MAT2B	6642 SNX1	0.963
7015 TERT	10445 MCRC1	0.95
9113 LATS1	11186 RASSF1	0.966
9112 MTA1	4331 MNAT1	0.953
9442 MED27	9325 TRIP4	0.955
55636 CHD7	55193 PBRM1	0.955
6925 TCF4	6886 TAL1	0.969
6925 TCF4	3397 ID1	0.953
6925 TCF4	3399 ID3	0.955
28957 MRPS28	28977 MRPL42	0.954
28957 MRPS28	64975 MRPL41	0.951
28957 MRPS28	4701 NDUFA7	0.953
4005 LMO2	6886 TAL1	0.96
3417 IDH1	2805 GOT1	0.953
3417 IDH1	79180 EFHD2	0.951
3417 IDH1	3336 HSPE1	0.954
3417 IDH1	6888 TALDO1	0.956
3417 IDH1	5763 PTMS	0.973
3417 IDH1	4830 NME1	0.965
578 BAK1	581 BAX	0.974
578 BAK1	4170 MCL1	0.952
29945 ANAPC4	4085 MAD2L1	0.956
29945 ANAPC4	26271 FBXO5	0.953
571 BACH1	11073 TOPBP1	0.97
571 BACH1	7975 MAFK	0.95
571 BACH1	4097 MAFG	0.968
571 BACH1	675 BRCA2	0.971
2801 GOLGA2	64689 GORASP1	0.959
5436 POLR2G	9400 RECQL5	0.97
5436 POLR2G	2963 GTF2F2	0.959
5436 POLR2G	26512 INTS6	0.953
5436 POLR2G	80306 MED28	0.97
5436 POLR2G	65123 INTS3	0.952
5437 POLR2H	661 POLR3D	0.957
5437 POLR2H	2963 GTF2F2	0.962
5437 POLR2H	25885 POLR1A	0.977
5437 POLR2H	2959 GTF2B	0.959
5437 POLR2H	1788 DNMT3A	0.975
5434 POLR2E	2963 GTF2F2	0.951
5434 POLR2E	2959 GTF2B	0.95
5439 POLR2J	80306 MED28	0.959

58477 SRPRB	10084 PQBP1	0.955
58477 SRPRB	5937 RBMS1	0.964
58477 SRPRB	51119 SBDS	0.957
58477 SRPRB	9997 SCO2	0.955
197131 UBR1	523 ATP6V1A	0.953
5883 RAD9A	5884 RAD17	0.967
5883 RAD9A	11073 TOPBP1	0.97
5883 RAD9A	7266 DNAJC7	0.95
5883 RAD9A	63967 CLSPN	0.97
23186 RCOR1	6886 TAL1	0.958
23186 RCOR1	5978 REST	0.985
23186 RCOR1	57504 MTA3	0.959
23186 RCOR1	6615 SNAI1	0.973
23633 KPNA6	3839 KPNA3	0.956
25929 GEMIN5	6726 SRP9	0.95
355 FAS	8837 CFLAR	0.965
355 FAS	843 CASP10	0.96
355 FAS	7132 TNFRSF1A	0.954
355 FAS	8772 FADD	0.959
11073 TOPBP1	5395 PMS2	0.974
7508 XPC	2965 GTF2H1	0.957
10952 SEC61B	439 ASNA1	0.971
10952 SEC61B	29927 SEC61A1	0.961
10952 SEC61B	6449 SGTA	0.95
10956 OS9	51465 UBE2J1	0.963
4800 NFYA	4801 NFYB	0.972
4800 NFYA	22926 ATF6	0.962
4802 NFYC	6878 TAF6	0.952
2072 ERCC4	2067 ERCC1	0.955
2072 ERCC4	84464 BTBD12	0.966
8975 USP13	7353 UFD1L	0.951
84661 DPY30	9070 ASH2L	0.95
6497 SKI	4204 MECP2	0.961
51013 EXOSC1	118460 EXOSC6	0.952
79657 RPAP3	50855 PARD6A	0.955
28977 MRPL42	51253 MRPL37	0.96
28973 MRPS18B	60488 MRPS35	0.952
4026 LPP	51002 TPRKB	0.968
4026 LPP	3267 AGFG1	0.95
4026 LPP	51194 IPO11	0.951
4026 LPP	5528 PPP2R5D	0.967
4026 LPP	10055 SAE1	0.956
55763 EXOC1	667 DST	0.958
55763 EXOC1	60412 EXOC4	0.959
55763 EXOC1	284058 KIAA1267	0.95
51069 MRPL2	64976 MRPL40	0.956

51069 MRPL2	51253 MRPL37	0.96
51069 MRPL2	6150 MRPL23	0.961
51608 C7orf20	1478 CSTF2	0.97
55588 MED29	2963 GTF2F2	0.952
55588 MED29	80306 MED28	0.951
57187 THOC2	55854 ZC3H15	0.962
9328 GTF3C5	9329 GTF3C4	0.96
9328 GTF3C5	10623 POLR3C	0.981
9328 GTF3C5	9330 GTF3C3	0.963
9328 GTF3C5	2976 GTF3C2	0.968
9329 GTF3C4	10623 POLR3C	0.962
9329 GTF3C4	9330 GTF3C3	0.965
9329 GTF3C4	3098 HK1	0.954
9329 GTF3C4	7511 XPNPEP1	0.972
9329 GTF3C4	30844 EHD4	0.963
9329 GTF3C4	2976 GTF3C2	0.956
26973 CHORDC1	55577 NAGK	0.954
550 AUP1	6400 SEL1L	0.952
550 AUP1	1650 DDOST	0.979
550 AUP1	51465 UBE2J1	0.976
550 AUP1	84447 SYVN1	0.962
79003 MIS12	10403 NDC80	0.956
5530 PPP3CA	4898 NRD1	0.96
5530 PPP3CA	64175 LEPRE1	0.958
5530 PPP3CA	7411 VBP1	0.951
5537 PPP6C	23243 ANKRD28	0.968
5536 PPP5C	5910 RAP1GDS1	0.952
5536 PPP5C	5049 PAFAH1B2	0.966
5536 PPP5C	64785 GINS3	0.964
5536 PPP5C	1676 DFFA	0.958
5536 PPP5C	2937 GSS	0.966
23613 ZMYND8	65123 INTS3	0.954
51479 ANKFY1	6093 ROCK1	0.968
3831 KLC1	89953 KLC4	0.962
3831 KLC1	372 ARCN1	0.95
3831 KLC1	7090 TLE3	0.952
10979 FERMT2	1676 DFFA	0.968
10979 FERMT2	501 ALDH7A1	0.967
56916 SMARCAD1	55929 DMAP1	0.952
2057 EPOR	8660 IRS2	0.952
2057 EPOR	3635 INPP5D	0.957
2057 EPOR	1399 CRKL	0.954
9402 GRAP2	11184 MAP4K1	0.954
9400 RECQL5	5433 POLR2D	0.952
10621 POLR3F	10623 POLR3C	0.977
7325 UBE2E2	7681 MKRN3	0.956

7320 UBE2B	9296 ATP6V1F	0.95
7320 UBE2B	10802 SEC24A	0.953
10084 PQBP1	5937 RBMS1	0.959
10084 PQBP1	7419 VDAC3	0.953
10084 PQBP1	9997 SCO2	0.958
10084 PQBP1	9877 ZC3H11A	0.964
10084 PQBP1	4701 NDUFA7	0.961
7067 THRA	10025 MED16	0.951
7067 THRA	2874 GPS2	0.973
7064 THOP1	309 ANXA6	0.951
7064 THOP1	1633 DCK	0.972
8624 PSMG1	84262 PSMG3	0.959
9984 THOC1	84321 THOC3	0.951
51592 TRIM33	64682 ANAPC1	0.95
9616 RNF7	51619 UBE2D4	0.951
9616 RNF7	7681 MKRN3	0.977
9616 RNF7	997 CDC34	0.96
9341 VAMP3	8673 VAMP8	0.968
9611 NCOR1	2959 GTF2B	0.952
9611 NCOR1	6878 TAF6	0.95
9618 TRAF4	7041 TGFB1I1	0.97
9618 TRAF4	8767 RIPK2	0.965
1810 DR1	51194 IPO11	0.958
1810 DR1	51562 MBIP	0.96
7290 HIRA	23523 CABIN1	0.973
26958 COPG2	11316 COPE	0.956
23075 SWAP70	10606 PAICS	0.959
23075 SWAP70	5007 OSBP	0.95
23075 SWAP70	5527 PPP2R5C	0.965
1601 DAB2	160 AP2A1	0.962
5479 PPIB	5937 RBMS1	0.986
5479 PPIB	57794 SF4	0.982
5479 PPIB	10469 TIMM44	0.979
5479 PPIB	9877 ZC3H11A	0.976
9894 TELO2	80230 RUFY1	0.959
9894 TELO2	55011 PIH1D1	0.953
55705 IPO9	23534 TNPO3	0.958
51082 POLR1D	84172 POLR1B	0.961
51082 POLR1D	25885 POLR1A	0.956
5519 PPP2R1B	11235 PDCD10	0.955
5519 PPP2R1B	5528 PPP2R5D	0.976
5511 PPP1R8	8726 EED	0.963
5516 PPP2CB	5528 PPP2R5D	0.968
3035 HARS	60528 ELAC2	0.957
3035 HARS	57510 XPO5	0.952
3035 HARS	7265 TTC1	0.953

3035 HARS	64746 ACBD3	0.951
3815 KIT	7006 TEC	0.964
3815 KIT	868 CBLB	0.965
9425 CDYL	5978 REST	0.965
5289 PIK3C3	30849 PIK3R4	0.974
5289 PIK3C3	8678 BECN1	0.959
9021 SOCS3	7852 CXCR4	0.961
9282 MED14	23476 BRD4	0.964
9282 MED14	9444 QKI	0.956
7046 TGFBR1	960 CD44	0.954
23708 GSPT2	5962 RDX	0.969
23708 GSPT2	2935 GSPT1	0.958
11344 TWF2	55239 OGFOD1	0.97
11344 TWF2	824 CAPN2	0.982
11344 TWF2	830 CAPZA2	0.953
11344 TWF2	3098 HK1	0.965
11344 TWF2	440 ASNS	0.962
11344 TWF2	9601 PDIA4	0.966
11345 GABARAPL2	64422 ATG3	0.955
11345 GABARAPL2	23192 ATG4B	0.957
11345 GABARAPL2	8408 ULK1	0.958
51024 FIS1	10059 DNM1L	0.951
64127 NOD2	55072 RNF31	0.973
64127 NOD2	329 BIRC2	0.96
64127 NOD2	10616 RBCK1	0.977
9361 LONP1	22983 MAST1	0.951
9361 LONP1	24138 IFIT5	0.957
1831 TSC22D3	6446 SGK1	0.961
10611 PDLIM5	51194 IPO11	0.952
57037 ANKMY2	10226 PLIN3	0.965
57037 ANKMY2	55197 RPRD1A	0.954
10614 HEXIM1	23476 BRD4	0.979
10614 HEXIM1	904 CCNT1	0.97
29924 EPN1	160 AP2A1	0.972
29924 EPN1	30846 EHD2	0.953
29924 EPN1	10053 AP1M2	0.95
23658 LSM5	11157 LSM6	0.968
8473 OGT	23640 HSPBP1	0.95
8473 OGT	10785 WDR4	0.953
55201 MAP1S	83593 RASSF5	0.953
2237 FEN1	60528 ELAC2	0.958
5937 RBMS1	8417 STX7	0.979
5937 RBMS1	51119 SBDS	0.963
5937 RBMS1	8724 SNX3	0.963
5937 RBMS1	10469 TIMM44	0.97
5937 RBMS1	6342 SCP2	0.979

5937 RBMS1	9877 ZC3H11A	0.972
8125 ANP32A	10226 PLIN3	0.963
23595 ORC3L	5001 ORC5L	0.967
23595 ORC3L	55388 MCM10	0.966
7360 UGP2	7791 ZYX	0.954
7360 UGP2	11252 PACSIN2	0.971
7360 UGP2	10726 NUDC	0.962
7027 TFDP1	1876 E2F6	0.961
7027 TFDP1	23429 RYBP	0.963
10226 PLIN3	55197 RPRD1A	0.968
10226 PLIN3	6726 SRP9	0.957
10226 PLIN3	51194 IPO11	0.969
10226 PLIN3	10785 WDR4	0.963
7791 ZYX	26136 TES	0.954
79184 BRCC3	9043 SPAG9	0.955
79184 BRCC3	675 BRCA2	0.955
8660 IRS2	5290 PIK3CA	0.954
8660 IRS2	8651 SOCS1	0.951
11328 FKBP9	8539 API5	0.962
11328 FKBP9	11235 PDCD10	0.956
11328 FKBP9	8994 LIMD1	0.952
11328 FKBP9	55236 UBA6	0.958
11328 FKBP9	55148 UBR7	0.952
55072 RNF31	8767 RIPK2	0.967
55072 RNF31	7706 TRIM25	0.969
55072 RNF31	10616 RBCK1	0.952
51009 DERL2	51465 UBE2J1	0.961
51009 DERL2	84447 SYVN1	0.956
51002 TPRKB	3267 AGFG1	0.962
51002 TPRKB	51194 IPO11	0.953
51002 TPRKB	10092 ARPC5	0.961
8089 YEATS4	3015 H2AFZ	0.961
8089 YEATS4	54556 ING3	0.95
8089 YEATS4	55929 DMAP1	0.967
6642 SNX1	7358 UGDH	0.956
6643 SNX2	5962 RDX	0.954
6643 SNX2	2935 GSPT1	0.952
6643 SNX2	5159 PDGFRB	0.956
57697 FANCM	2176 FANCC	0.95
1855 DVL1	1857 DVL3	0.953
1855 DVL1	1453 CSNK1D	0.95
2176 FANCC	3280 HES1	0.951
5433 POLR2D	80306 MED28	0.957
5433 POLR2D	65123 INTS3	0.951
84296 GINS4	64785 GINS3	0.956
3267 AGFG1	51056 LAP3	0.956

3267 AGFG1	64175 LEPRE1	0.955
6886 TAL1	861 RUNX1	0.955
6886 TAL1	6304 SATB1	0.953
6884 TAF13	51616 TAF9B	0.961
6884 TAF13	6878 TAF6	0.969
6884 TAF13	6872 TAF1	0.972
6888 TALDO1	1633 DCK	0.959
602 BCL3	5971 RELB	0.954
468 ATF4	2959 GTF2B	0.954
468 ATF4	3726 JUNB	0.955
8417 STX7	51119 SBDS	0.968
8417 STX7	57794 SF4	0.963
8417 STX7	8724 SNX3	0.972
8417 STX7	4905 NSF	0.98
8417 STX7	55573 CDV3	0.955
8417 STX7	9997 SCO2	0.979
8417 STX7	6342 SCP2	0.967
8417 STX7	8673 VAMP8	0.975
8417 STX7	4701 NDUFA7	0.969
4140 MARK3	51564 HDAC7	0.96
4140 MARK3	995 CDC25C	0.975
55239 OGFOD1	55236 UBA6	0.96
5910 RAP1GDS1	1892 ECHS1	0.959
5910 RAP1GDS1	5049 PAFAH1B2	0.958
5910 RAP1GDS1	5504 PPP1R2	0.957
5910 RAP1GDS1	5198 PFAS	0.952
5910 RAP1GDS1	29789 OLA1	0.963
64682 ANAPC1	9232 PTTG1	0.959
57599 WDR48	23239 PHLPP1	0.958
64425 POLR1E	25885 POLR1A	0.95
64422 ATG3	9140 ATG12	0.97
64422 ATG3	445 ASS1	0.969
64422 ATG3	9474 ATG5	0.965
64422 ATG3	23192 ATG4B	0.96
2617 GARS	7358 UGDH	0.965
7347 UCHL3	7335 UBE2V1	0.95
7347 UCHL3	9296 ATP6V1F	0.954
7347 UCHL3	55236 UBA6	0.959
7347 UCHL3	57159 TRIM54	0.959
29082 CHMP4A	1633 DCK	0.953
29082 CHMP4A	27183 VPS4A	0.951
9020 MAP3K14	8837 CFLAR	0.966
9020 MAP3K14	4791 NFKB2	0.969
9020 MAP3K14	843 CASP10	0.967
29882 ANAPC2	27338 UBE2S	0.956
29883 CNOT7	8317 CDC7	0.957

29888 STRN4	29115 SAP30BP	0.95
29888 STRN4	5527 PPP2R5C	0.957
23637 RABGAP1	7879 RAB7A	0.951
1052 CEBPD	51176 LEF1	0.966
1052 CEBPD	2623 GATA1	0.953
1052 CEBPD	3726 JUNB	0.954
1054 CEBPG	8061 FOSL1	0.966
1054 CEBPG	3726 JUNB	0.973
5358 PLS3	5763 PTMS	0.957
5358 PLS3	4830 NME1	0.958
5358 PLS3	1633 DCK	0.96
11047 ADRM1	10422 UBAC1	0.956
54108 CHRAC1	5763 PTMS	0.968
8648 NCOA1	9325 TRIP4	0.964
8648 NCOA1	2959 GTF2B	0.96
8649 MAPKSP1	56993 TOMM22	0.962
8649 MAPKSP1	5604 MAP2K1	0.975
1876 E2F6	23429 RYBP	0.976
1874 E2F4	9070 ASH2L	0.956
10499 NCOA2	8856 NR1I2	0.955
57819 LSM2	8449 DHX16	0.955
10018 BCL2L11	4170 MCL1	0.959
661 POLR3D	10623 POLR3C	0.955
9821 RB1CC1	8408 ULK1	0.957
23168 RTF1	6917 TCEA1	0.972
23168 RTF1	1788 DNMT3A	0.966
23168 RTF1	80349 WDR61	0.982
5978 REST	23309 SIN3B	0.953
5971 RELB	5977 DPF2	0.954
10951 CBX1	9557 CHD1L	0.971
10951 CBX1	4204 MECP2	0.961
10951 CBX1	1788 DNMT3A	0.979
84171 LOXL4	10053 AP1M2	0.955
84172 POLR1B	25885 POLR1A	0.98
84311 MRPL45	64978 MRPL38	0.95
84311 MRPL45	51253 MRPL37	0.961
84313 VPS25	51028 VPS36	0.972
2965 GTF2H1	4331 MNAT1	0.962
2965 GTF2H1	6917 TCEA1	0.958
2965 GTF2H1	2068 ERCC2	0.951
2961 GTF2E2	2963 GTF2F2	0.962
2960 GTF2E1	6917 TCEA1	0.95
2960 GTF2E1	6301 SARS	0.952
2960 GTF2E1	56904 SH3GLB2	0.953
2963 GTF2F2	6917 TCEA1	0.96
2962 GTF2F1	6872 TAF1	0.956

4331 MNAT1	2071 ERCC3	0.957
4331 MNAT1	56658 TRIM39	0.956
4331 MNAT1	7681 MKRN3	0.953
4331 MNAT1	9099 USP2	0.971
5763 PTMS	1633 DCK	0.971
5184 PEPD	8942 KYNU	0.973
5184 PEPD	445 ASS1	0.959
5184 PEPD	840 CASP7	0.971
5184 PEPD	9615 GDA	0.964
5184 PEPD	5476 CTSA	0.972
5184 PEPD	10072 DPP3	0.963
5184 PEPD	2936 GSR	0.974
6602 SMARCD1	6603 SMARCD2	0.968
6602 SMARCD1	29117 BRD7	0.952
6602 SMARCD1	2623 GATA1	0.974
6603 SMARCD2	9031 BAZ1B	0.959
1892 ECHS1	64785 GINS3	0.954
1892 ECHS1	5198 PFAS	0.951
1892 ECHS1	2937 GSS	0.972
4928 NUP98	8480 RAE1	0.963
5162 PDHB	1737 DLAT	0.976
80335 WDR82	9070 ASH2L	0.966
80335 WDR82	11091 WDR5	0.954
84433 CARD11	5588 PRKCQ	0.968
84433 CARD11	9099 USP2	0.976
6844 VAMP2	9554 SEC22B	0.962
6844 VAMP2	8673 VAMP8	0.954
6844 VAMP2	9217 VAPB	0.966
6844 VAMP2	8773 SNAP23	0.957
648 BMI1	10336 PCGF3	0.951
9646 CTR9	6917 TCEA1	0.952
9646 CTR9	80349 WDR61	0.963
10746 MAP3K2	5609 MAP2K7	0.958
79101 TAF1D	25885 POLR1A	0.96
4659 PPP1R12A	64175 LEPRE1	0.954
51119 SBDS	8724 SNX3	0.961
51119 SBDS	10469 TIMM44	0.954
51119 SBDS	9997 SCO2	0.956
51119 SBDS	10277 UBE4B	0.959
8837 CFLAR	8767 RIPK2	0.957
8837 CFLAR	8772 FADD	0.956
1759 DNM1	11252 PACSIN2	0.952
8767 RIPK2	7132 TNFRSF1A	0.958
8767 RIPK2	23118 TAB2	0.956
8766 RAB11A	7879 RAB7A	0.962
8766 RAB11A	9230 RAB11B	0.954

8766 RAB11A		2665 GDI2		0.952
55752	11-Sep	10801	9-Sep	0.951
80755 AARSD1		6119 RPA3		0.96
80755 AARSD1		56904 SH3GLB2		0.965
8539 API5		7511 XPNPEP1		0.973
8027 STAM		9146 HGS		0.957
8027 STAM		9101 USP8		0.953
8027 STAM		407 ARR3		0.953
8027 STAM		29978 UBQLN2		0.954
8027 STAM		11075 STMN2		0.955
51135 IRAK4		114609 TIRAP		0.957
162 AP1B1		9685 CLINT1		0.967
163 AP2B1		9685 CLINT1		0.951
10363 HMG20A		57504 MTA3		0.963
57504 MTA3		23199 KIAA0182		0.981
57504 MTA3		57459 GATAD2B		0.981
64746 ACBD3		6301 SARS		0.955
64746 ACBD3		11267 SNF8		0.965
64746 ACBD3		51028 VPS36		0.953
64746 ACBD3		26003 GORASP2		0.958
5605 MAP2K2		5604 MAP2K1		0.965
5605 MAP2K2		673 BRAF		0.961
5604 MAP2K1		369 ARAF		0.972
5604 MAP2K1		673 BRAF		0.959
5604 MAP2K1		65125 WNK1		0.975
5601 MAPK9		5609 MAP2K7		0.98
9632 SEC24C		10802 SEC24A		0.954
9325 TRIP4		29079 MED4		0.962
9325 TRIP4		9439 MED23		0.973
9325 TRIP4		51586 MED15		0.968
9325 TRIP4		80306 MED28		0.96
8942 KYNU		55577 NAGK		0.984
8942 KYNU		10944 C11orf58		0.982
8942 KYNU		6611 SMS		0.99
8942 KYNU		2936 GSR		0.987
23256 SCFD1		64976 MRPL40		0.966
23256 SCFD1		4905 NSF		0.966
23256 SCFD1		8773 SNAP23		0.972
57794 SF4		8724 SNX3		0.95
57794 SF4		9877 ZC3H11A		0.962
5049 PAFAH1B2		2937 GSS		0.955
89953 KLC4		64837 KLC2		0.951
23062 GGA2		3482 IGF2R		0.952
23063 WAPAL		10274 STAG1		0.972
29966 STRN3		5524 PPP2R4		0.956
55658 RNF126		373 TRIM23		0.96

56658 TRIM39	9099 USP2	0.956
4613 MYCN	4914 NTRK1	0.955
10523 CHERP	1659 DHX8	0.956
824 CAPN2	3098 HK1	0.975
824 CAPN2	9601 PDIA4	0.955
826 CAPNS1	4643 MYO1E	0.955
5252 PHF1	8726 EED	0.963
5252 PHF1	3090 HIC1	0.958
11127 KIF3A	22920 KIFAP3	0.959
3015 H2AFZ	55929 DMAP1	0.951
8724 SNX3	9877 ZC3H11A	0.963
8726 EED	3090 HIC1	0.969
50855 PARD6A	5584 PRKCI	0.961
50855 PARD6A	56288 PARD3	0.954
50855 PARD6A	84612 PARD6B	0.965
5660 PSAP	6836 SURF4	0.956
23239 PHLPP1	64854 USP46	0.95
6400 SEL1L	51465 UBE2J1	0.961
6400 SEL1L	79139 DERL1	0.978
6400 SEL1L	84447 SYVN1	0.965
836 CASP3	843 CASP10	0.957
8887 TAX1BP1	4646 MYO6	0.958
8887 TAX1BP1	10318 TNIP1	0.982
64975 MRPL41	51253 MRPL37	0.957
64975 MRPL41	124995 MRPL10	0.967
5062 PAK2	54926 UBE2R2	0.962
9577 BRE	675 BRCA2	0.952
79718 TBL1XR1	2874 GPS2	0.965
30001 ERO1L	9601 PDIA4	0.957
30001 ERO1L	23640 HSPBP1	0.954
30001 ERO1L	10785 WDR4	0.955
30001 ERO1L	64175 LEPRE1	0.956
8061 FOSL1	3726 JUNB	0.979
1453 CSNK1D	2273 FHL1	0.959
1453 CSNK1D	94274 PPP1R14A	0.962
4798 NFRKB	10445 MCRS1	0.952
6904 TBCD	6301 SARS	0.965
6904 TBCD	55759 WDR12	0.959
6904 TBCD	51699 VPS29	0.969
6904 TBCD	26003 GORASP2	0.971
64785 GINS3	2937 GSS	0.965
64786 TBC1D15	10059 DNMT1L	0.973
51176 LEF1	4092 SMAD7	0.957
10320 IKZF1	1107 CHD3	0.951
10320 IKZF1	2623 GATA1	0.975
10320 IKZF1	23309 SIN3B	0.957

7979 SHFM1	55756 INTS9	0.968
7979 SHFM1	26512 INTS6	0.974
7979 SHFM1	675 BRCA2	0.97
9140 ATG12	9474 ATG5	0.971
9140 ATG12	23192 ATG4B	0.964
9493 KIF23	9101 USP8	0.976
9146 HGS	9372 ZFYVE9	0.961
9146 HGS	10254 STAM2	0.956
373 TRIM23	9099 USP2	0.966
372 ARCN1	11316 COPE	0.951
843 CASP10	842 CASP9	0.96
843 CASP10	840 CASP7	0.979
843 CASP10	8797 TNFRSF10A	0.965
842 CASP9	841 CASP8	0.959
842 CASP9	581 BAX	0.974
842 CASP9	329 BIRC2	0.956
841 CASP8	840 CASP7	0.967
841 CASP8	10134 BCAP31	0.955
4905 NSF	8773 SNAP23	0.962
4905 NSF	8775 NAPA	0.972
6464 SHC1	868 CBLB	0.952
26092 TOR1AIP1	55183 RIF1	0.979
114609 TIRAP	7099 TLR4	0.967
5001 ORC5L	5000 ORC4L	0.959
5001 ORC5L	8317 CDC7	0.959
5000 ORC4L	55388 MCM10	0.974
904 CCNT1	123169 LEO1	0.954
904 CCNT1	6879 TAF7	0.962
904 CCNT1	6872 TAF1	0.966
9559 VPS26A	9296 ATP6V1F	0.95
9559 VPS26A	51028 VPS36	0.957
9559 VPS26A	10059 DNMT1L	0.967
9559 VPS26A	10726 NUDC	0.959
9554 SEC22B	9217 VAPB	0.982
64223 MLST8	253260 RICTOR	0.95
84993 UBL7	283237 TTC9C	0.955
84993 UBL7	29978 UBQLN2	0.956
5584 PRKCI	84612 PARD6B	0.952
5588 PRKCQ	5170 PDPK1	0.973
64769 MEAF6	7994 MYST3	0.952
8317 CDC7	55388 MCM10	0.956
868 CBLB	23607 CD2AP	0.964
868 CBLB	7535 ZAP70	0.97
868 CBLB	1399 CRKL	0.97
868 CBLB	25 ABL1	0.96
868 CBLB	7410 VAV2	0.969

868 CBLB	6850 SYK	0.966
10623 POLR3C	9330 GTF3C3	0.959
10623 POLR3C	2976 GTF3C2	0.968
861 RUNX1	865 CFBF	0.959
861 RUNX1	7994 MYST3	0.953
864 RUNX3	4090 SMAD5	0.951
9330 GTF3C3	29894 CPSF1	0.971
9444 QKI	51586 MED15	0.954
3054 HCFC1	9070 ASH2L	0.95
4597 MVD	2936 GSR	0.956
81611 ANP32E	5962 RDX	0.953
6446 SGK1	5598 MAPK7	0.959
6917 TCEA1	123169 LEO1	0.955
6917 TCEA1	2959 GTF2B	0.962
6917 TCEA1	80349 WDR61	0.969
92483 LDHAL6B	55577 NAGK	0.95
60412 EXOC4	149371 EXOC8	0.958
960 CD44	7410 VAV2	0.977
3098 HK1	11235 PDCD10	0.962
1612 DAPK1	8772 FADD	0.954
1676 DFFA	5198 PFAS	0.959
64965 MRPS9	51021 MRPS16	0.95
4204 MECP2	6670 SP3	0.955
148022 TICAM1	7099 TLR4	0.961
148022 TICAM1	54476 RNF216	0.96
23404 EXOSC2	57379 AICDA	0.968
6118 RPA2	29978 UBQLN2	0.969
6119 RPA3	60491 NIF3L1	0.95
9101 USP8	10254 STAM2	0.953
9101 USP8	57159 TRIM54	0.956
136319 MTPN	523 ATP6V1A	0.953
10589 DRAP1	51616 TAF9B	0.966
11186 RASSF1	83593 RASSF5	0.956
7419 VDAC3	6342 SCP2	0.952
7419 VDAC3	9218 VAPA	0.954
7419 VDAC3	9217 VAPB	0.95
7419 VDAC3	4701 NDUFA7	0.954
440 ASNS	2937 GSS	0.95
445 ASS1	1977 EIF4E	0.955
445 ASS1	5476 CTSA	0.967
445 ASS1	10072 DPP3	0.965
283237 TTC9C	7336 UBE2V2	0.957
283237 TTC9C	7335 UBE2V1	0.954
7706 TRIM25	10616 RBCK1	0.968
7706 TRIM25	51619 UBE2D4	0.95
3635 INPP5D	613 BCR	0.971

55577 NAGK	10944 C11orf58	0.964
7133 TNFRSF1B	10293 TRAIP	0.971
581 BAX	4170 MCL1	0.963
1436 CSF1R	6654 SOS1	0.973
11235 PDCD10	5198 PFAS	0.952
11235 PDCD10	55148 UBR7	0.95
55388 MCM10	4171 MCM2	0.95
51400 PPME1	10785 WDR4	0.95
23429 RYBP	54880 BCOR	0.964
9601 PDIA4	501 ALDH7A1	0.959
10944 C11orf58	9627 SNCAIP	0.952
10944 C11orf58	6611 SMS	0.979
79874 RABEP2	23607 CD2AP	0.95
10616 RBCK1	27338 UBE2S	0.963
10616 RBCK1	9099 USP2	0.958
2065 ERBB3	7535 ZAP70	0.966
2065 ERBB3	1399 CRKL	0.952
2065 ERBB3	3572 IL6ST	0.955
2067 ERCC1	6879 TAF7	0.964
2067 ERCC1	6878 TAF6	0.951
2067 ERCC1	84464 BTBD12	0.957
60626 RIC8A	80349 WDR61	0.967
467 ATF3	4097 MAFG	0.96
123169 LEO1	1788 DNMT3A	0.971
123169 LEO1	80349 WDR61	0.968
10134 BCAP31	79139 DERL1	0.955
10133 OPTN	10318 TNIP1	0.973
10138 YAF2	54880 BCOR	0.95
84262 PSMG3	10059 DNMT1L	0.975
29950 SERTAD1	894 CCND2	0.968
5525 PPP2R5A	5527 PPP2R5C	0.972
5528 PPP2R5D	10095 ARPC1B	0.977
5528 PPP2R5D	5905 RANGAP1	0.952
51465 UBE2J1	55432 YOD1	0.971
51465 UBE2J1	79139 DERL1	0.971
51465 UBE2J1	84447 SYVN1	0.956
23624 CBLC	7535 ZAP70	0.966
23192 ATG4B	8408 ULK1	0.975
25936 NSL1	10403 NDC80	0.952
7511 XPNPEP1	55236 UBA6	0.959
55905 RNF114	10293 TRAIP	0.966
7994 MYST3	84289 ING5	0.952
7994 MYST3	11091 WDR5	0.972
79813 EHMT1	1788 DNMT3A	0.974
11267 SNF8	51028 VPS36	0.961
54880 BCOR	10336 PCGF3	0.966

10092 ARPC5	10094 ARPC3	0.95
28969 BZW2	5198 PFAS	0.954
7070 THY1	9997 SCO2	0.967
55759 WDR12	51028 VPS36	0.96
55759 WDR12	7251 TSG101	0.955
51616 TAF9B	6872 TAF1	0.962
10403 NDC80	9212 AURKB	0.951
23154 NCDN	5504 PPP1R2	0.969
84246 MED10	80306 MED28	0.96
29978 UBQLN2	10785 WDR4	0.96
23607 CD2AP	23325 KIAA1033	0.955
7681 MKRN3	7336 UBE2V2	0.973
369 ARAF	673 BRAF	0.96
369 ARAF	65125 WNK1	0.965
81608 FIP1L1	29894 CPSF1	0.953
4831 NME2	4830 NME1	0.976
5290 PIK3CA	9138 ARHGEF1	0.956
7336 UBE2V2	51569 UFM1	0.964
7335 UBE2V1	9296 ATP6V1F	0.955
10212 DDX39	6611 SMS	0.95
50626 CYHR1	10059 DNM1L	0.978
9997 SCO2	6342 SCP2	0.955
9997 SCO2	4701 NDUFA7	0.962
11034 DSTN	10802 SEC24A	0.953
11035 RIPK3	8772 FADD	0.96
51586 MED15	80306 MED28	0.962
26271 FBXO5	27338 UBE2S	0.967
26271 FBXO5	51529 ANAPC11	0.963
5906 RAP1A	6009 RHEB	0.951
10785 WDR4	64175 LEPRE1	0.957
10785 WDR4	10055 SAE1	0.962
2957 GTF2A1	6878 TAF6	0.951
2957 GTF2A1	6872 TAF1	0.966
2957 GTF2A1	26003 GORASP2	0.957
11075 STMN2	10802 SEC24A	0.967
8673 VAMP8	8773 SNAP23	0.964
8673 VAMP8	8775 NAPA	0.971
4091 SMAD6	11059 WWP1	0.965
4091 SMAD6	657 BMPR1A	0.957
25836 NIPBL	6672 SP100	0.967
6654 SOS1	613 BCR	0.986
10801	8801 SUCLG2	0.954
10802 SEC24A	10059 DNM1L	0.969
8795 TNFRSF10B	8797 TNFRSF10A	0.951
8797 TNFRSF10A	8772 FADD	0.963
5962 RDX	7430 EZR	0.95

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5962 RDX		2935 GSPT1	0.98
9230 RAB11B		2665 GDI2	0.963
9232 PTTG1		51529 ANAPC11	0.969
10274 STAG1		10735 STAG2	0.951
8651 SOCS1		7410 VAV2	0.97
51699 VPS29		51028 VPS36	0.96
2107 ETF1		2935 GSPT1	0.967
54472 TOLLIP		3554 IL1R1	0.955
54472 TOLLIP		23543 RBM9	0.955
891 CCNB1		995 CDC25C	0.957
892 CCNC		80306 MED28	0.959
6879 TAF7		6878 TAF6	0.963
6879 TAF7		6872 TAF1	0.976
6878 TAF6		6873 TAF2	0.95
6873 TAF2		6872 TAF1	0.959
55432 YOD1		57159 TRIM54	0.966
989	7-Sep	6836 SURF4	0.968
57466 SFRS15		9217 VAPB	0.954
27338 UBE2S		51529 ANAPC11	0.962
9218 VAPA		9217 VAPB	0.971
9070 ASH2L		7391 USF1	0.951
10297 APC2		51529 ANAPC11	0.956
9877 ZC3H11A		4701 NDUFA7	0.963
11091 WDR5		80349 WDR61	0.959