

Figure S1. Heat map of DEGs between *IDH2* R140Q mutation and wild-type AML bone marrow tissues. DEGs, differentially expressed genes; *IDH2*, isocitrate dehydrogenase 2; AML, acute myeloid leukemia.

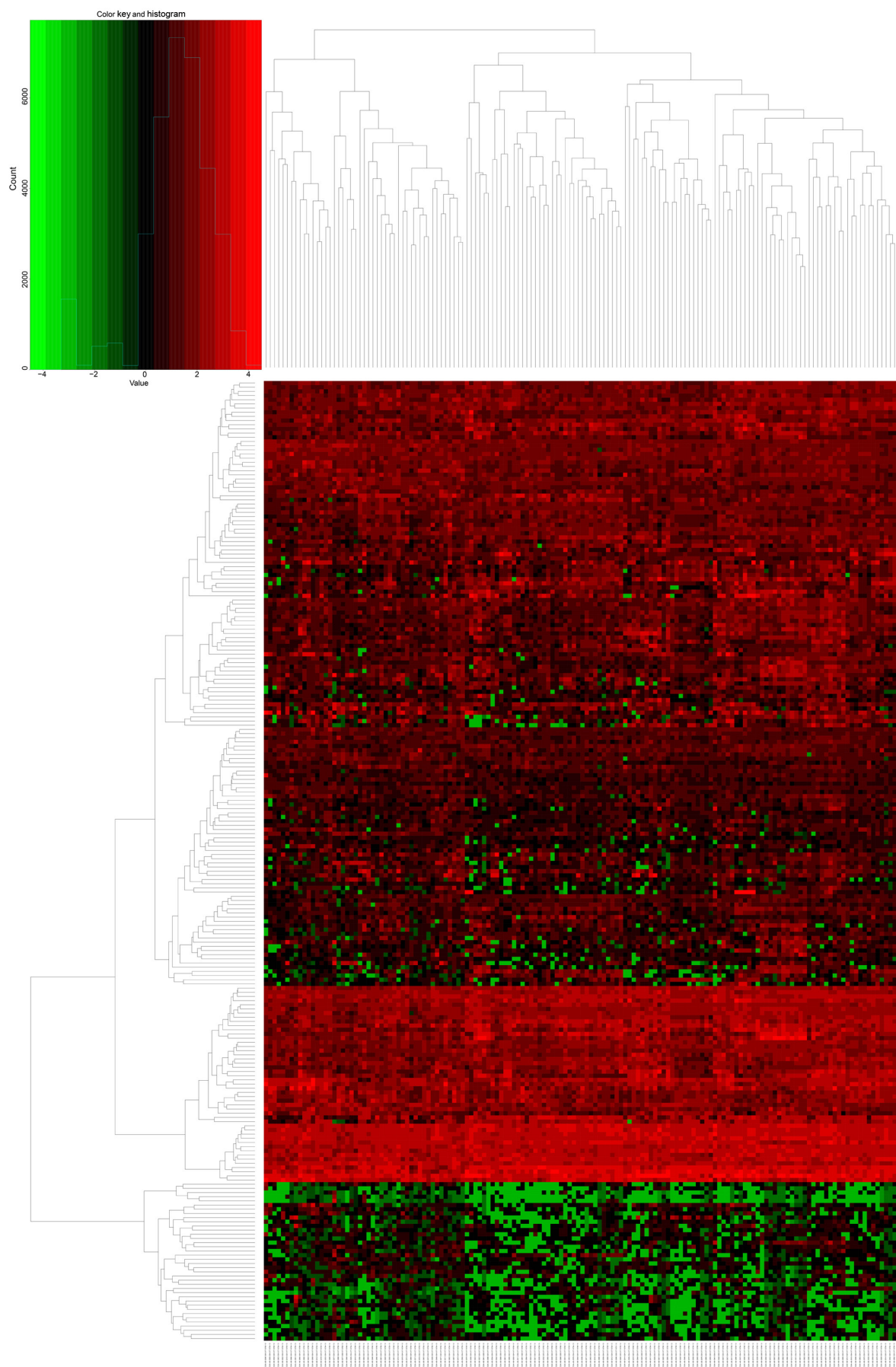


Figure S2. BiNGO enrichment results of DEGs between *IDH2 R140Q* mutation and wild-type AML bone marrow tissues. BiNGO, Biological Networks Gene Ontology tool; DEGs, differentially expressed genes; *IDH2*, isocitrate dehydrogenase 2; AML, acute myeloid leukemia.

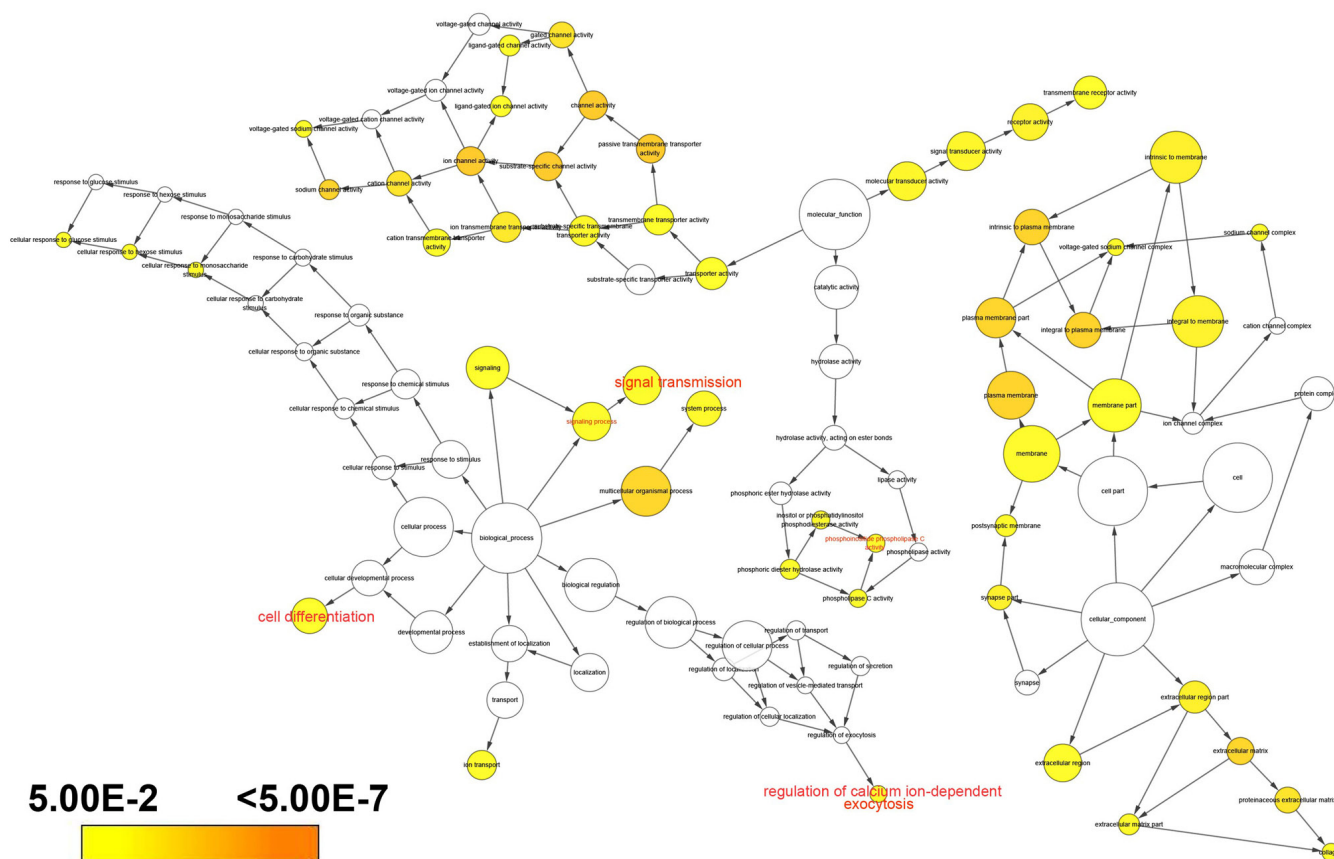


Figure S3. Protein-protein interaction of DEGs identified by STRING. DEGs, differentially expressed genes; STRING, Search Tool for the Retrieval of Interacting Genes/Proteins.

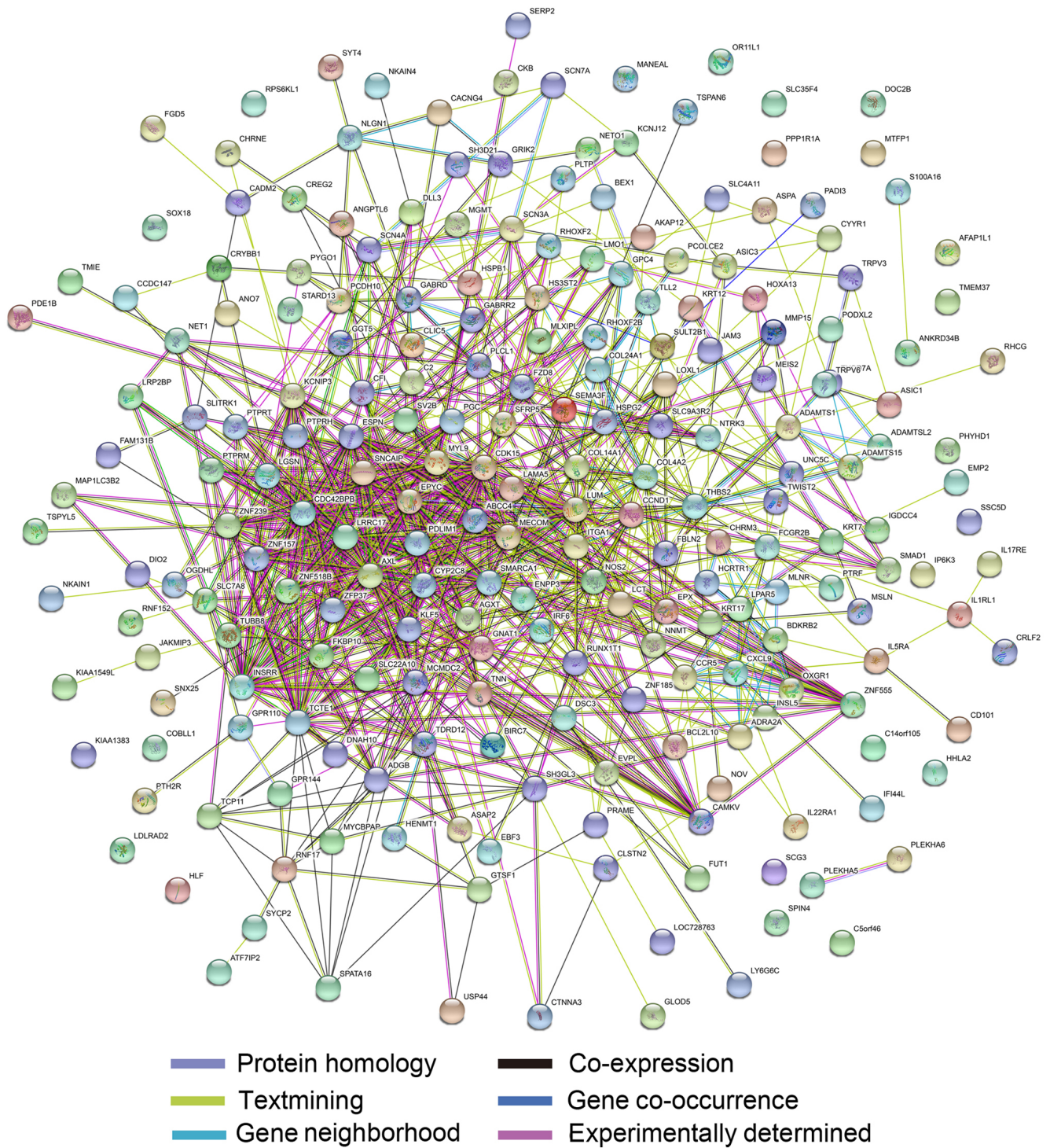


Figure S4. BiNGO enrichment results of *IDH2* co-expression genes. BiNGO, Biological Networks Gene Ontology tool; *IDH2*, isocitrate dehydrogenase 2.

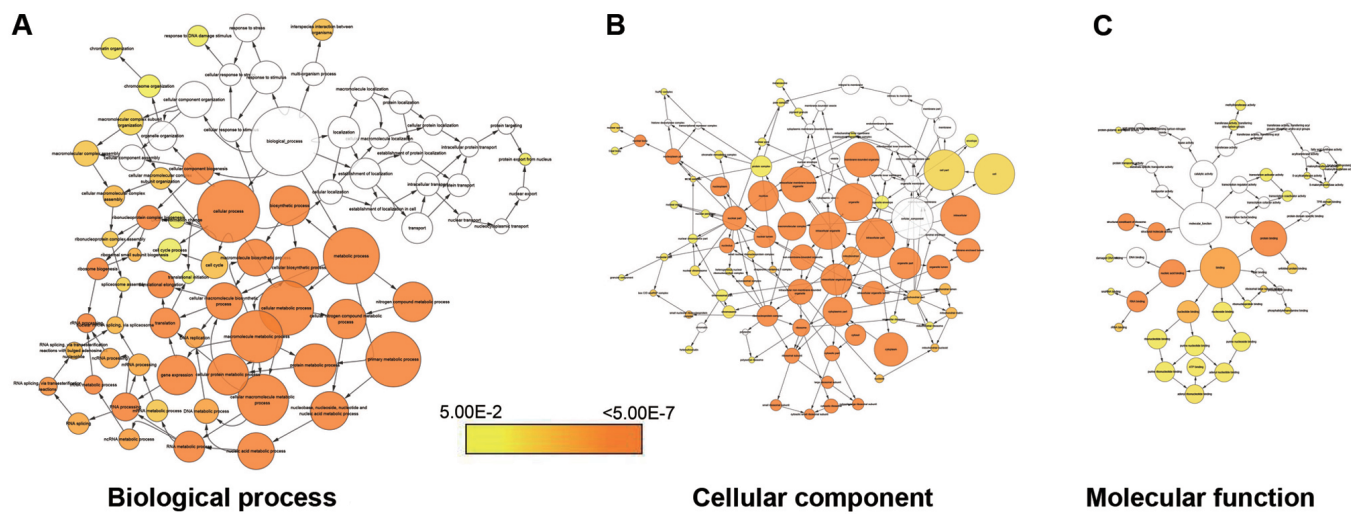


Figure S5. Protein-protein interaction of *IDH2* and its co-expression genes identified by STRING. *IDH2*, isocitrate dehydrogenase 2; STRING, Search Tool for the Retrieval of Interacting Genes/Proteins.

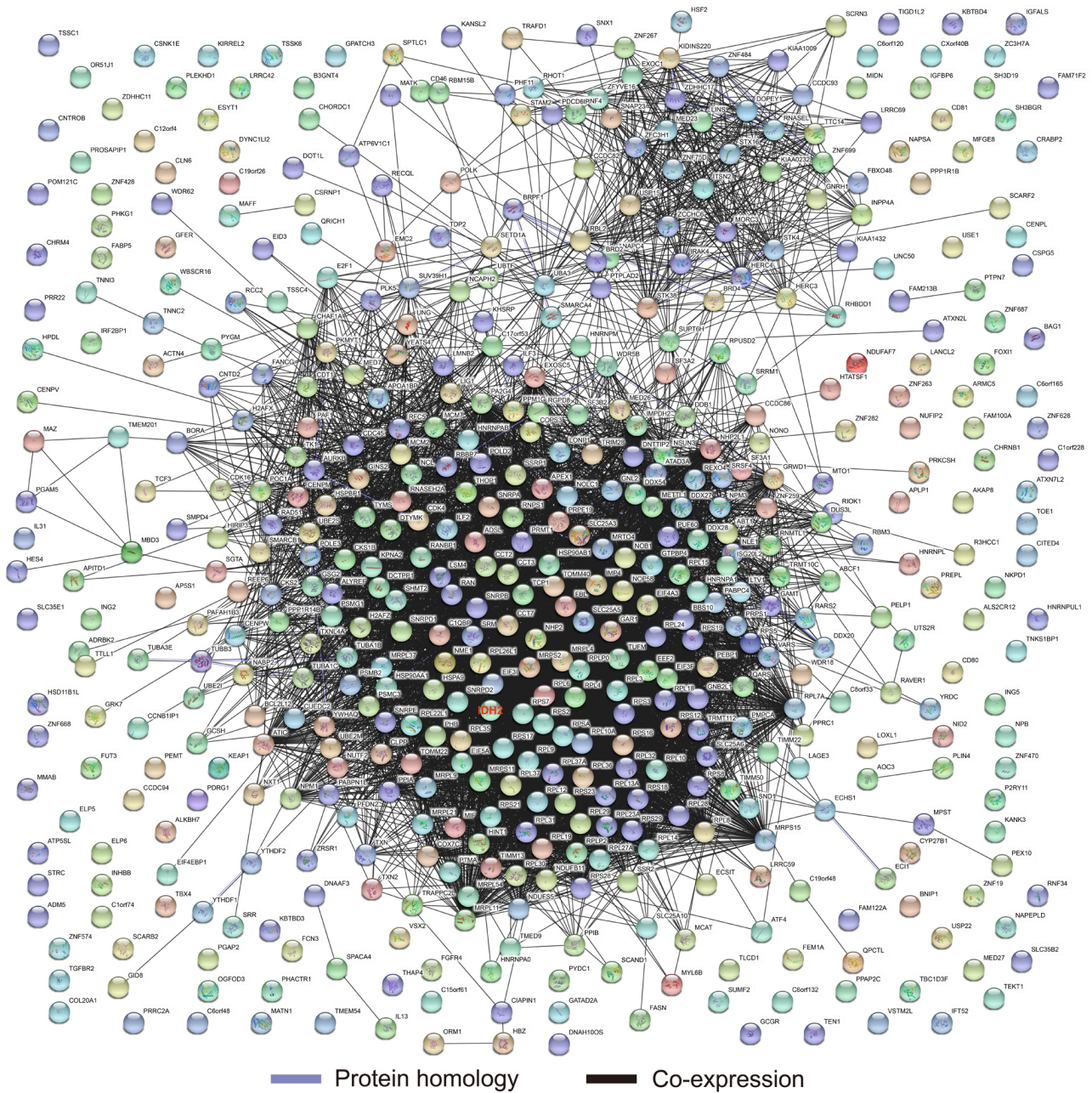


Table SI. DEGs for *IDH2 R140Q* mutation and wild-type AML bone marrow tissues.

ID	Log ₂ FC	P-value	FDR
NKAIN1	4.850481	2.11E-21	3.70E-17
BIRC7	5.658152	1.75E-20	1.53E-16
NKAIN4	5.202331	4.55E-20	2.66E-16
BDKRB2	4.113803	2.93E-19	1.28E-15
EPYC	7.635361	3.29E-18	1.15E-14
TDRD12	3.278425	1.16E-16	3.38E-13
RNF17	2.885597	7.09E-15	1.77E-11
TSPAN10	2.586458	1.00E-13	2.19E-10
HS3ST2	2.583919	3.59E-13	7.00E-10
SYT4	4.659815	1.38E-11	2.43E-08
GRIK2	3.003406	4.90E-10	7.50E-07
RHOXF2B	3.551046	5.14E-10	7.50E-07
ADAMTS1	3.091615	6.60E-10	8.90E-07
KIAA1549L	2.470587	1.38E-09	1.72E-06
IP6K3	2.426386	1.75E-09	2.05E-06
LMO1	3.559818	2.13E-09	2.33E-06
PRAME	-8.63757	7.61E-09	7.84E-06
LUM	3.062215	8.71E-09	8.47E-06
GTSF1	-4.55287	1.12E-08	1.03E-05
HENMT1	-1.71204	1.48E-08	1.30E-05
JAKMIP3	1.483175	2.48E-08	2.07E-05
HCRTR1	1.636803	3.41E-08	2.72E-05
SLC22A10	2.873186	4.44E-08	3.38E-05
SH3GL3	3.097727	5.27E-08	3.85E-05
ASIC3	1.62774	8.45E-08	5.92E-05
C5orf46	2.805377	9.61E-08	6.48E-05
NOV	2.43544	1.71E-07	0.000111
DNAH10	1.457063	2.99E-07	0.000187
SLC9A3R2	-2.32951	6.17E-07	0.000363
TLL2	2.447069	6.22E-07	0.000363
MLXIPL	1.954298	6.72E-07	0.00038
MAP1LC3B2	1.008861	7.79E-07	0.000414
CDK15	-5.0036	7.81E-07	0.000414
SFRP5	1.577338	8.03E-07	0.000414
ZNF555	-1.57606	8.37E-07	0.000419
PLEKHA5	-1.29851	8.62E-07	0.00042
C14orf105	1.687554	1.05E-06	0.000498
PDE1B	1.085634	1.50E-06	0.00069
IL1RL1	-4.94889	1.54E-06	0.00069
SERP2	-3.41033	1.81E-06	0.000792
ZNF518B	-1.27435	1.99E-06	0.00085
CREG2	2.392546	2.10E-06	0.000878

NFE4	-2.95236	2.17E-06	0.000884
ZNF239	-2.04484	2.31E-06	0.000884
KRT7	2.262138	2.31E-06	0.000884
PCOLCE2	2.774665	2.32E-06	0.000884
THSD7A	2.793642	3.58E-06	0.001333
CADM2	2.9939	3.86E-06	0.001394
CTNNA3	2.420788	3.90E-06	0.001394
HOXA13	2.949694	4.44E-06	0.001556
IL22RA1	2.47355	4.78E-06	0.001642
GLOD5	-3.03354	5.10E-06	0.001717
ENPP3	-3.56341	5.42E-06	0.001783
PLEKHA6	-2.69986	5.50E-06	0.001783
ANO7	-3.33496	5.75E-06	0.001833
ANKRD34B	2.20011	6.40E-06	0.002001
CLIC5	1.569972	6.74E-06	0.002072
LDLRAD2	-2.36708	7.04E-06	0.002115
DIO2	1.768392	7.12E-06	0.002115
OXGR1	2.594014	7.59E-06	0.002215
FAM131B	1.268424	8.44E-06	0.002423
ADGRF1	2.845304	9.24E-06	0.00257
PCDH10	3.414167	9.36E-06	0.00257
CFAP58	1.12582	9.39E-06	0.00257
FGD5	-4.59743	1.33E-05	0.003577
GABRR2	1.155268	1.41E-05	0.003742
PTH2R	-2.79626	1.44E-05	0.003772
NOS2	2.028643	1.54E-05	0.003966
CFI	2.214381	1.57E-05	0.003983
EPX	-2.98984	1.76E-05	0.004347
SULT2B1	-2.77085	1.87E-05	0.004548
GNAT1	1.728773	2.06E-05	0.004874
CRYBB1	1.28705	2.14E-05	0.005002
IRF6	-5.51195	2.21E-05	0.005086
SNCAIP	2.795383	2.25E-05	0.005114
KRT12	1.771382	2.29E-05	0.005137
CLSTN2	-4.79374	2.47E-05	0.005418
PGC	1.676714	2.47E-05	0.005418
SLC35F4	1.343592	2.58E-05	0.005582
KCNJ12	-3.68328	2.70E-05	0.00576
FBLN2	-3.48474	2.73E-05	0.005766
PYGO1	1.973674	2.88E-05	0.005938
KRT17	-5.01498	2.88E-05	0.005938
RHCG	2.628478	3.32E-05	0.006756
LOXL1	-3.13638	3.43E-05	0.006905
LGSN	-4.7326	3.56E-05	0.007063

SLC7A8	-2.038	3.59E-05	0.007063
GPC4	2.528909	3.63E-05	0.007063
ADGB	-2.05856	3.72E-05	0.007161
ASAP2	-2.04629	4.57E-05	0.008603
AFAP1L1	-3.03727	4.73E-05	0.008781
AGXT	-5.02371	4.76E-05	0.008781
PTPRT	1.685677	5.03E-05	0.009178
SV2B	-2.91423	5.19E-05	0.009364
HHLA2	1.577514	5.32E-05	0.009512
INSRR	1.62835	5.46E-05	0.009661
C2	-3.26387	5.66E-05	0.009902
ESPN	-3.27021	5.71E-05	0.009902
IFI44L	1.937426	6.00E-05	0.010306
RHOXF2	1.572886	6.30E-05	0.010712
CAVIN1	-3.24096	6.70E-05	0.01128
MCMD2C2	-1.07708	7.12E-05	0.011699
LRP2BP	1.386547	7.16E-05	0.011699
MSLN	-4.50487	7.22E-05	0.011699
MAP10	-1.28827	7.28E-05	0.011699
HLF	-3.97494	7.53E-05	0.011972
ZFP37	1.333384	7.83E-05	0.012131
THBS2	-1.66233	7.91E-05	0.012159
PHYHD1	-1.67047	8.22E-05	0.012523
LAMA5	-2.00807	8.56E-05	0.012814
CCR5	1.55137	8.64E-05	0.012814
ADGRD2	-2.68538	8.71E-05	0.012814
NET1	-1.11117	8.93E-05	0.012955
TRPV6	-1.9471	8.95E-05	0.012955
TRPV3	-2.29429	9.37E-05	0.01334
TCP11	-1.76705	0.000101	0.014298
SCG3	1.092409	0.000107	0.014926
CYP2C8	-2.38355	0.00011	0.015109
PLTP	-1.26342	0.000118	0.016099
SYCP2	1.642249	0.00012	0.016135
NETO1	2.347807	0.000122	0.016135
TSPYL5	-3.03108	0.000123	0.016135
IL5RA	-3.16318	0.000128	0.016674
PTPRM	-2.94009	0.000139	0.017896
KLF5	1.341029	0.00014	0.017896
ABCC4	-1.29083	0.000142	0.018061
CDC42BPB	-1.43678	0.000145	0.018062
ADAMTSL2	-2.68369	0.000149	0.018192
EMP2	-2.2509	0.00016	0.019433
CHRM3	-4.34097	0.000161	0.019433

ANGPTL6	-1.38777	0.000164	0.019662
MLNR	-1.67057	0.000166	0.019782
TSPAN6	-2.51309	0.000168	0.019929
LRRC17	-1.33607	0.000173	0.020302
USP44	1.712971	0.000174	0.020302
BEX1	2.095041	0.000176	0.020302
SEMA3F	-1.97641	0.000176	0.020302
INSL5	1.835766	0.000182	0.020876
MECOM	-5.11814	0.000187	0.02118
RNF152	1.516774	0.000187	0.02118
IL17RE	-3.32727	0.000197	0.021862
ATF7IP2	-1.06094	0.000197	0.021862
AL096870.1	1.425327	0.000197	0.021862
LCT	-2.4667	0.0002	0.022002
SLITRK1	2.157997	0.000207	0.022561
RUNX1T1	-7.09635	0.000215	0.02315
TCTE1	1.273373	0.000215	0.02315
SPIN4	-1.05074	0.000221	0.023655
MTFP1	-1.11706	0.000227	0.024125
S100A16	-4.60741	0.000229	0.024172
JAM3	-1.36163	0.000245	0.025674
MYL9	-1.57152	0.000248	0.025811
SCN3A	2.13522	0.000256	0.026426
COBLL1	1.509565	0.000256	0.026426
FKBP10	-2.24821	0.000279	0.028348
SLC4A11	-1.92358	0.000282	0.028348
RPS6KL1	-1.78952	0.000283	0.028348
MMP15	-2.29602	0.000285	0.028348
AKAP12	-2.29706	0.000285	0.028348
CAMKV	1.659384	0.000289	0.028429
EBF3	-2.96246	0.000289	0.028429
SMAD1	1.163978	0.000291	0.028477
UNC5C	-4.3448	0.000293	0.028508
ZNF185	-1.56044	0.000298	0.028826
TWIST2	1.759794	0.000302	0.029084
SCN7A	1.64329	0.000332	0.031283
PADI3	-5.38623	0.000337	0.031353
PPP1R1A	1.108733	0.000338	0.031353
STARD13	-1.47833	0.000338	0.031353
FZD8	-2.3701	0.000354	0.032642
SOX18	-2.40644	0.000361	0.033086
ADRA2A	-2.83932	0.000365	0.033121
SPATA16	-4.0579	0.000369	0.033294
CACNG4	-3.32186	0.000372	0.033433

GABRD	-3.17434	0.000384	0.034287
DSC3	1.525166	0.000393	0.034904
MEIS2	-3.64743	0.0004	0.035352
OR11L1	-3.12784	0.000405	0.035441
FUT1	-2.39717	0.000406	0.035441
DOC2B	-3.21978	0.000407	0.035441
MINDY4	-1.85521	0.000412	0.035747
HSPB1	-1.23687	0.000435	0.03713
TNN	-3.25234	0.000445	0.037476
COL24A1	1.08309	0.000458	0.038355
MYCBPAP	-1.50186	0.000464	0.038698
COL14A1	-2.67273	0.000471	0.038704
KCNIP3	-2.54332	0.000474	0.038704
MGMT	-1.04413	0.000476	0.038704
ADAMTS15	-4.19815	0.000477	0.038704
SNX25	1.290652	0.000477	0.038704
DLL3	-3.92879	0.000504	0.04048
BCL2L10	-3.10426	0.000507	0.040521
CROCC2	-3.26128	0.000511	0.040553
MANEAL	1.130267	0.000513	0.040553
IGDCC4	-2.9055	0.000514	0.040553
TUBB8	1.560071	0.000518	0.040685
ITGA1	1.511337	0.000525	0.040857
CD101	1.416845	0.000541	0.041067
COL4A2	-2.71419	0.000546	0.041067
AXL	-1.89305	0.00055	0.041067
SCN4A	-1.785	0.000551	0.041067
PDLIM1	-1.53522	0.000551	0.041067
CHRNE	-1.3445	0.00057	0.042158
PTPRH	-2.21823	0.000573	0.042181
ASIC1	-2.43302	0.000577	0.042272
ZNF157	1.051008	0.000579	0.042281
OGDHL	-3.61064	0.000584	0.042429
SSC5D	-1.59364	0.000609	0.043781
GGT5	-1.87068	0.000612	0.043781
NNMT	-2.26351	0.000612	0.043781
SH3D21	-1.06392	0.000617	0.043917
TMEM37	-2.23159	0.000625	0.044355
CKB	-2.02215	0.000628	0.04437
FCGR2B	1.275938	0.000633	0.044399
TMIE	-1.83235	0.000636	0.044399
LY6G6C	1.206504	0.000643	0.044724
PODXL2	-1.86919	0.000663	0.045745
CXCL9	-3.65657	0.000673	0.046043

EVPL	-2.39831	0.000677	0.046148
LPAR5	-1.52553	0.000681	0.046252
SLC22A31	-3.13399	0.000707	0.047489
PLCL1	1.349078	0.000708	0.047489
NLGN1	-4.36412	0.00071	0.047489
CCND1	-2.15011	0.000721	0.048006
CRLF2	1.536724	0.000729	0.048344
CYYR1	-4.43295	0.000746	0.049319
SMARCA1	-2.76959	0.000753	0.049544
ASPA	-1.83776	0.000756	0.049544
NTRK3	-3.88047	0.000759	0.049544
HSPG2	-1.42269	0.000761	0.049544

The top 10 significant prognostic DEGs were highlight in bold print. FC, fold change; DEGs, differentially expressed genes; *IDH2*, isocitrate dehydrogenase 2; AML, acute myeloid leukemia; FDR, false discovery rate.

Table SII. Prognostic values of the DEGs in patients with AML.

ID	P-value	HR	Low 95% CI	High 95% CI
PODXL2	0.000193	2.312086	1.48801	3.592543
FUT1	0.000334	0.446019	0.28693	0.693316
PLEKHA5	0.000548	0.460514	0.29667	0.714846
KCNIP3	0.001409	0.493545	0.319941	0.761348
PLEKHA6	0.001487	2.063614	1.319893	3.226401
AKAP12	0.002781	0.515914	0.334372	0.796021
IGDCC4	0.00297	0.518816	0.336512	0.799885
TSPAN10	0.003453	0.519867	0.335327	0.805966
C14orf105	0.003817	0.527136	0.341606	0.81343
GABRD	0.005472	0.541983	0.351798	0.834984
NOV	0.006743	1.818718	1.179901	2.803399
CAMKV	0.0071	1.80607	1.174418	2.77745
LCT	0.00865	1.783159	1.157927	2.74599
ZNF555	0.00953	0.562808	0.364439	0.869152
OXGR1	0.010512	1.758273	1.141131	2.709173
NLGN1	0.011038	0.569127	0.368495	0.878998
COL4A2	0.012572	0.575973	0.373451	0.888321
SULT2B1	0.020749	1.684986	1.082795	2.622084
NTRK3	0.026679	0.611012	0.395216	0.944636
CRYBB1	0.027814	1.623005	1.054238	2.498624
KRT12	0.030315	0.624005	0.407244	0.95614
SSC5D	0.031954	0.620405	0.401083	0.959658
COL14A1	0.032002	0.625399	0.407235	0.960438
MTFP1	0.032353	1.599646	1.040319	2.459696
BCL2L10	0.033773	1.589439	1.036179	2.438109
STARD13	0.035198	1.604183	1.033331	2.490396
HLF	0.036273	1.587031	1.029974	2.445369
CLSTN2	0.037039	1.584559	1.028061	2.442295
ASIC3	0.046294	1.547835	1.007203	2.378661
TDRD12	0.048011	0.648743	0.422464	0.99622
EPX	0.048424	0.649016	0.422484	0.997012
RNF17	0.050494	0.650147	0.422299	1.000927
GLOD5	0.056622	0.659552	0.429934	1.011803
PTH2R	0.062828	0.664337	0.431789	1.022127
SPIN4	0.063793	0.664596	0.431455	1.023717
LDLRAD2	0.064496	1.500242	0.97589	2.306331
SCN4A	0.066488	1.495525	0.972991	2.298681
AGXT	0.071667	0.675815	0.441224	1.035135
ENPP3	0.074581	0.67792	0.442185	1.039327
CTNNA3	0.074925	1.47999	0.961355	2.278419
NFE4	0.0752	1.476517	0.961192	2.268125
RNF152	0.082689	0.684278	0.445792	1.050347

LOXL1	0.086751	1.454303	0.947387	2.232456
LGSN	0.089188	0.690332	0.450269	1.058386
GPC4	0.090839	1.455467	0.942046	2.248706
ADAMTS15	0.091377	0.691631	0.450786	1.061155
ATF7IP2	0.10515	1.427054	0.928184	2.19405
JAKMIP3	0.105442	0.70251	0.458155	1.07719
TMEM37	0.107077	0.70186	0.456302	1.079566
LMO1	0.112307	0.707635	0.461773	1.084402
RPS6KL1	0.114981	0.708852	0.462088	1.087393
AXL	0.117527	0.707994	0.459451	1.090988
FZD8	0.117533	1.409198	0.917126	2.165283
CADM2	0.118781	0.71202	0.46468	1.091013
ADGB	0.121161	0.711762	0.463025	1.094123
NNMT	0.123669	0.71318	0.463778	1.096699
CCR5	0.125962	1.398108	0.910179	2.147606
TSPYL5	0.126184	1.396695	0.910209	2.143197
IFI44L	0.129481	1.392213	0.907683	2.135389
DSC3	0.129621	0.717732	0.467405	1.102125
SNCAIP	0.130431	0.717263	0.466281	1.103338
MECOM	0.135301	0.721033	0.469406	1.107547
DOC2B	0.138199	0.723213	0.471206	1.109997
SOX18	0.140237	1.380261	0.899437	2.118125
DIO2	0.146696	0.727977	0.474143	1.117702
SLC9A3R2	0.150901	1.367252	0.892232	2.09517
LUM	0.157901	0.734842	0.479162	1.126951
MEIS2	0.163828	0.738586	0.482113	1.131498
SFRP5	0.165652	1.357879	0.881094	2.092663
FAM131B	0.170042	1.349416	0.8795	2.070408
ZNF239	0.17367	1.345947	0.8773	2.064941
MYCBPAP	0.18034	1.339935	0.873299	2.055913
PCDH10	0.18063	0.745806	0.485463	1.145765
PDLIM1	0.1844	1.335174	0.871296	2.046022
EBF3	0.18591	0.743885	0.479861	1.153178
PDE1B	0.18993	1.331459	0.867812	2.042818
RUNX1T1	0.190168	0.750678	0.488792	1.152877
FKBP10	0.190443	0.749948	0.487477	1.153741
CD101	0.191741	1.329081	0.867071	2.03727
PADI3	0.192293	1.328641	0.866755	2.036663
SLC7A8	0.200933	0.75556	0.491712	1.160986
HHLA2	0.202752	1.320092	0.861045	2.02387
DLL3	0.207373	0.759684	0.495537	1.164636
SCN7A	0.217866	1.307944	0.853382	2.004631
GRIK2	0.222717	1.307377	0.849763	2.011427
AL096870.1	0.223193	1.304644	0.85047	2.001359

ZNF518B	0.223278	1.309326	0.848548	2.020316
LY6G6C	0.22451	0.766768	0.49952	1.176996
PHYHD1	0.225556	0.767123	0.499641	1.177799
KLF5	0.230102	1.298694	0.847482	1.990136
TRPV6	0.231088	0.770397	0.502699	1.180649
PPP1R1A	0.231205	1.29905	0.846478	1.993592
SYCP2	0.232617	0.770392	0.501987	1.182309
FCGR2B	0.234032	1.296468	0.845367	1.988282
CHRNE	0.234423	1.295443	0.845499	1.984833
MAP10	0.255176	1.280899	0.836222	1.962043
NETO1	0.259117	0.781967	0.510125	1.198672
LAMA5	0.259839	0.781926	0.50972	1.199496
ASIC1	0.267874	0.785411	0.512303	1.204112
PTPRT	0.267937	0.785923	0.513199	1.203576
CYP2C8	0.275666	1.268378	0.827203	1.944849
ADGRD2	0.276679	0.788594	0.514055	1.209756
SCG3	0.299968	1.254117	0.817309	1.924375
OR11L1	0.304657	1.250999	0.815751	1.918475
KRT17	0.304856	0.799776	0.521943	1.225501
ANKRD34B	0.306817	1.250759	0.814334	1.921078
AFAP1L1	0.317885	0.804675	0.525315	1.232596
THBS2	0.31856	0.804766	0.52518	1.233194
PGC	0.32981	1.236604	0.806735	1.89553
C5orf46	0.337382	1.232709	0.803955	1.89012
MAP1LC3B2	0.341622	0.813257	0.531135	1.245233
HS3ST2	0.343918	0.813244	0.530032	1.247786
KCNJ12	0.347022	1.228825	0.799784	1.888025
THSD7A	0.347896	0.81512	0.531927	1.249083
SMARCA1	0.352951	1.226029	0.797557	1.88469
FBLN2	0.35476	1.223779	0.797904	1.876961
ITGA1	0.357719	0.818621	0.53439	1.254029
KIAA1549L	0.379962	0.825972	0.539013	1.265702
HENMT1	0.384756	0.82663	0.538082	1.269913
TRPV3	0.39855	0.830964	0.540605	1.277274
PTPRM	0.407551	1.19835	0.780936	1.838872
ZFP37	0.414166	0.837278	0.546691	1.282323
IL1RL1	0.414879	0.837181	0.546118	1.283369
SLC22A10	0.416197	0.837754	0.546733	1.283682
BDKRB2	0.416717	0.837723	0.546405	1.28436
ASPA	0.41721	0.838077	0.546946	1.284173
MLNR	0.417797	0.837376	0.545089	1.286392
UNC5C	0.41851	1.193899	0.777142	1.834149
MLXIPL	0.423041	1.190551	0.777028	1.824146
NOS2	0.42692	1.188729	0.775985	1.821011

LRRC17	0.429293	0.842168	0.55006	1.289399
COL24A1	0.433976	1.186551	0.773028	1.821282
CFAP58	0.440808	1.183785	0.77084	1.817949
ANGPTL6	0.45159	0.848203	0.552505	1.302156
EVPL	0.453556	0.849648	0.554877	1.301011
IRF6	0.454064	0.849443	0.554128	1.302143
BIRC7	0.456428	0.849877	0.553911	1.303984
BEX1	0.459611	1.174827	0.766501	1.800675
TUBB8	0.460197	1.174371	0.766565	1.799127
CACNG4	0.466394	1.171771	0.764877	1.795119
HSPB1	0.467371	1.171078	0.764929	1.792877
SLC4A11	0.468227	0.853997	0.557506	1.308167
SV2B	0.469558	1.170927	0.763493	1.795786
IP6K3	0.476161	0.856511	0.559359	1.311522
SNX25	0.479395	1.166691	0.761047	1.788545
SLC22A31	0.501584	1.157411	0.755647	1.772786
MINDY4	0.506907	0.865696	0.565444	1.325383
INSL5	0.512487	1.15349	0.752385	1.768428
JAM3	0.515316	1.152447	0.751588	1.767104
ANO7	0.515672	0.867848	0.566031	1.330599
SEMA3F	0.52132	0.8696	0.567372	1.332816
GTSF1	0.521839	0.869816	0.567643	1.332844
RHCG	0.526796	1.14805	0.748644	1.760544
SYT4	0.534955	0.873933	0.570972	1.337648
PLTP	0.53612	0.873639	0.569478	1.340255
NET1	0.539183	1.142896	0.746203	1.750479
MSLN	0.541902	0.874473	0.568271	1.345667
EPYC	0.54335	0.87617	0.572059	1.34195
GGT5	0.550771	0.878097	0.572888	1.345909
SH3D21	0.55325	0.878277	0.571863	1.348872
MCMDC2	0.555084	0.879673	0.574655	1.346589
TWIST2	0.559543	0.880685	0.574752	1.349462
HOXA13	0.560767	1.136463	0.738533	1.748803
PLCL1	0.564997	1.133127	0.740291	1.734423
ADAMTSL2	0.566411	1.132754	0.739733	1.734587
PCOLCE2	0.569209	1.131808	0.738956	1.733511
CKB	0.57014	0.883828	0.5771	1.353581
MGMT	0.573054	1.130404	0.738067	1.731298
FGD5	0.574372	0.884545	0.576479	1.35724
LRP2BP	0.581667	1.127687	0.735414	1.7292
CROCC2	0.584595	0.887864	0.579643	1.359981
C2	0.597464	1.123466	0.729283	1.730708
OGDHL	0.598983	0.891704	0.581685	1.366954
SLC35F4	0.607163	1.118807	0.729272	1.716409

CCND1	0.614787	0.896262	0.585043	1.373036
SMAD1	0.618375	1.115399	0.725802	1.714126
LPAR5	0.622601	0.898528	0.586787	1.375888
CRLF2	0.636703	1.108087	0.723777	1.69646
TMIE	0.641409	0.903835	0.590604	1.383191
IL5RA	0.645405	0.904602	0.590195	1.3865
IL17RE	0.648106	0.905041	0.589633	1.389167
TCTE1	0.651242	0.906414	0.591973	1.387879
CYYR1	0.652392	0.906554	0.591568	1.389257
SLITRK1	0.673648	0.912617	0.596316	1.396692
TSPAN6	0.687231	1.091447	0.712858	1.671097
GABRR2	0.688022	1.091368	0.712246	1.672294
MMP15	0.695464	0.918342	0.599473	1.406821
TLL2	0.696437	1.088612	0.710608	1.667691
SCN3A	0.699498	0.919548	0.600646	1.407766
PTPRH	0.704177	1.086087	0.709138	1.663404
CREG2	0.707651	0.921599	0.601486	1.412078
NKAIN1	0.719854	1.081201	0.705691	1.656527
SERP2	0.725337	0.926558	0.605433	1.418009
ADRA2A	0.728826	0.927406	0.605668	1.420056
HSPG2	0.7294	0.92744	0.605245	1.421152
GNAT1	0.749105	0.932464	0.607473	1.431321
ABCC4	0.750693	0.933243	0.609395	1.429191
CXCL9	0.78237	0.9416	0.614381	1.443095
IL22RA1	0.783221	1.061782	0.692728	1.62745
KRT7	0.792127	1.059147	0.690815	1.623868
ASAP2	0.796297	1.057715	0.69079	1.61954
ESPN	0.81017	0.949107	0.61975	1.453494
NKAIN4	0.810844	1.05342	0.68788	1.613208
HCRTR1	0.81312	0.949784	0.619607	1.455905
TCP11	0.818545	0.951361	0.621361	1.456621
CDK15	0.82759	0.953733	0.622711	1.460722
SH3GL3	0.83477	0.955474	0.622801	1.465847
CDC42BPB	0.835976	1.046095	0.682814	1.602654
S100A16	0.836643	1.045862	0.682899	1.601742
MYL9	0.837916	1.045517	0.682518	1.601577
DNAH10	0.866437	1.037246	0.677337	1.588394
INSRR	0.869408	1.036372	0.676945	1.586638
CLIC5	0.871999	0.965545	0.630283	1.479139
ADAMTS1	0.872481	1.035532	0.67609	1.586069
ZNF185	0.889645	0.970225	0.633047	1.486991
EMP2	0.890074	0.969851	0.628301	1.49707
USP44	0.890406	0.970527	0.634164	1.485299
ZNF157	0.913442	0.976657	0.637942	1.495214

PRAME	0.91561	1.02332	0.668089	1.567433
MANEAL	0.926047	0.980012	0.639852	1.501011
ADGRF1	0.936493	0.982757	0.640671	1.5075
RHOXF2	0.944347	0.984941	0.643268	1.508095
CHRM3	0.949366	1.013896	0.662234	1.5523
CAVIN1	0.950798	1.013496	0.662047	1.551512
TNN	0.952767	1.012996	0.660771	1.552974
CFI	0.954674	1.012441	0.660997	1.550746
RHOXF2B	0.954899	0.987779	0.645057	1.512591
SPATA16	0.971464	1.007803	0.658311	1.542837
PYGO1	0.987518	0.996596	0.650153	1.527646
COBLL1	0.994228	1.001575	0.653838	1.534255

DEGs, differentially expressed genes; AML, acute myeloid leukemia; CI, confidence interval; HR, hazard ratio.

Table SIII. Co-expressed genes of *IDH2* in the *IDH2 R140Q*-mutated AML bone marrow tissue.

ID	ID	r	P-value
IDH2	MED23	-0.87	0.023972
IDH2	NDUFAF7	-0.866	0.024627
IDH2	WDR5B	-0.846	0.028142
IDH2	ZFYVE16	-0.84	0.029278
IDH2	SNAP23	-0.838	0.029665
IDH2	EXOC1	-0.837	0.02986
IDH2	ANAPC4	-0.837	0.02986
IDH2	RHBDD1	-0.834	0.030453
IDH2	ZC3H7A	-0.833	0.030652
IDH2	TGFBR2	-0.831	0.031055
IDH2	IRAK4	-0.827	0.031874
IDH2	RGPD8	-0.825	0.03229
IDH2	C6orf120	-0.823	0.032711
IDH2	CD80	-0.821	0.033137
IDH2	MED7	-0.821	0.033137
IDH2	KIAA0232	-0.82	0.033352
IDH2	STK38	-0.816	0.034222
IDH2	HERC3	-0.812	0.035112
IDH2	BORA	-0.811	0.035338
IDH2	TDP2	-0.81	0.035565
IDH2	STAM2	-0.81	0.035565
IDH2	C1orf74	-0.809	0.035793
IDH2	ZCCHC6	-0.808	0.036022
IDH2	POLK	-0.808	0.036022
IDH2	HERC4	-0.805	0.036717
IDH2	ALS2CR12	-0.804	0.036952
IDH2	FBXO48	-0.804	0.036952
IDH2	DOPEY1	-0.803	0.037187
IDH2	ZDHHC17	-0.803	0.037187
IDH2	KBTBD3	-0.802	0.037424
IDH2	STK4	-0.8	0.037902
IDH2	DYNC1LI2	-0.799	0.038142
IDH2	RECQL	-0.798	0.038384
IDH2	RNF34	-0.798	0.038384
IDH2	ZNF19	-0.797	0.038628
IDH2	KIDINS220	-0.796	0.038872
IDH2	MORC3	-0.796	0.038872
IDH2	ATP6V1C1	-0.794	0.039365
IDH2	ZNF267	-0.793	0.039614
IDH2	C12orf4	-0.788	0.040877
IDH2	AL049697.1	-0.786	0.041392
IDH2	UBA3	-0.785	0.041651

IDH2	SPTLC1	-0.785	0.041651
IDH2	NUFIP2	-0.784	0.041912
IDH2	CEP162	-0.782	0.042437
IDH2	BBS10	-0.782	0.042437
IDH2	UNC50	-0.782	0.042437
IDH2	SCARB2	-0.782	0.042437
IDH2	HACD4	-0.781	0.042702
IDH2	USP15	-0.781	0.042702
IDH2	RIC1	-0.781	0.042702
IDH2	RHOT1	-0.781	0.042702
IDH2	NAPEPLD	-0.78	0.042969
IDH2	NAPSA	-0.78	0.042969
IDH2	CD46	-0.779	0.043236
IDH2	TRAFD1	-0.779	0.043236
IDH2	RNASEL	-0.778	0.043506
IDH2	FAM122A	-0.778	0.043506
IDH2	NSUN3	-0.776	0.044048
IDH2	ZFC3H1	-0.776	0.044048
IDH2	ZNF75D	-0.776	0.044048
IDH2	ZNF484	-0.775	0.044321
IDH2	SCRN3	-0.774	0.044596
IDH2	GNRH1	-0.773	0.044872
IDH2	EMC2	-0.773	0.044872
IDH2	SNX1	-0.772	0.04515
IDH2	ZNF699	-0.771	0.045429
IDH2	MTO1	-0.77	0.04571
IDH2	RBL2	-0.769	0.045992
IDH2	INPP4A	-0.768	0.046275
IDH2	RARS2	-0.767	0.04656
IDH2	LINS1	-0.767	0.04656
IDH2	ZNF470	-0.766	0.046847
IDH2	AL512506.3	-0.766	0.046847
IDH2	CCDC93	-0.766	0.046847
IDH2	GRK3	-0.765	0.047135
IDH2	PDCD6IP	-0.763	0.047715
IDH2	PHF11	-0.763	0.047715
IDH2	ITSN2	-0.761	0.048301
IDH2	CCDC82	-0.76	0.048597
IDH2	SEC22B	-0.76	0.048597
IDH2	TTC14	-0.759	0.048894
IDH2	LRRC69	-0.758	0.049192
IDH2	ZRSR1	-0.757	0.049492
IDH2	STX16	-0.757	0.049492
IDH2	PREPL	-0.757	0.049492

IDH2	CHORDC1	-0.756	0.049794
IDH2	OR51J1	0.756	0.049744
IDH2	B3GNT4	0.756	0.049744
IDH2	CKS2	0.756	0.049744
IDH2	MFGE8	0.756	0.049744
IDH2	THOP1	0.756	0.049744
IDH2	HSD11B1L	0.756	0.049744
IDH2	SPACA4	0.756	0.049744
IDH2	PGAP2	0.756	0.049744
IDH2	PEMT	0.757	0.049443
IDH2	HSP90AA1	0.757	0.049443
IDH2	ING2	0.757	0.049443
IDH2	SUMF2	0.757	0.049443
IDH2	TMED9	0.758	0.049143
IDH2	QARS	0.758	0.049143
IDH2	UTS2R	0.758	0.049143
IDH2	KBTBD4	0.759	0.048845
IDH2	SF3A1	0.759	0.048845
IDH2	TXN	0.759	0.048845
IDH2	EIF4EBP1	0.759	0.048845
IDH2	TCF3	0.759	0.048845
IDH2	EIF4A3	0.759	0.048845
IDH2	RPS12	0.759	0.048845
IDH2	STRC	0.76	0.048548
IDH2	CBARP	0.76	0.048548
IDH2	QRICH1	0.76	0.048548
IDH2	VSTM2L	0.76	0.048548
IDH2	APLP1	0.76	0.048548
IDH2	SCAND1	0.76	0.048548
IDH2	RPL29	0.76	0.048548
IDH2	PSMB2	0.76	0.048548
IDH2	TUBA3E	0.761	0.048253
IDH2	GINS2	0.761	0.048253
IDH2	RPL26L1	0.761	0.048253
IDH2	SLC25A3	0.761	0.048253
IDH2	NAXE	0.762	0.047959
IDH2	REEP6	0.762	0.047959
IDH2	GNL2	0.762	0.047959
IDH2	RPS29	0.763	0.047667
IDH2	TUFM	0.763	0.047667
IDH2	CSRNP1	0.763	0.047667
IDH2	ING5	0.763	0.047667
IDH2	CCDC94	0.764	0.047376
IDH2	PSMC3	0.764	0.047376

IDH2	CCNB1IP1	0.764	0.047376
IDH2	MMAB	0.764	0.047376
IDH2	ATXN2L	0.764	0.047376
IDH2	RPL18	0.764	0.047376
IDH2	RPL30	0.764	0.047376
IDH2	VSX2	0.764	0.047376
IDH2	AKAP8	0.764	0.047376
IDH2	HIRIP3	0.764	0.047376
IDH2	TOMM22	0.764	0.047376
IDH2	BRPF1	0.765	0.047087
IDH2	RPS3	0.765	0.047087
IDH2	GID8	0.765	0.047087
IDH2	GAR1	0.766	0.0468
IDH2	ZNF574	0.766	0.0468
IDH2	FASN	0.766	0.0468
IDH2	AOC3	0.766	0.0468
IDH2	AC010422.3	0.766	0.0468
IDH2	AC025594.3	0.766	0.0468
IDH2	PDRG1	0.767	0.046513
IDH2	MRPL9	0.767	0.046513
IDH2	KANSL2	0.767	0.046513
IDH2	POC1A	0.767	0.046513
IDH2	SUV39H1	0.768	0.046229
IDH2	EID3	0.768	0.046229
IDH2	CDK16	0.768	0.046229
IDH2	RPL6	0.768	0.046229
IDH2	IGFALS	0.768	0.046229
IDH2	ZNF428	0.768	0.046229
IDH2	MCAT	0.769	0.045945
IDH2	LOXL1	0.769	0.045945
IDH2	RPL9	0.769	0.045945
IDH2	FCN3	0.769	0.045945
IDH2	TMEM54	0.769	0.045945
IDH2	FEM1A	0.769	0.045945
IDH2	MATN1	0.769	0.045945
IDH2	CENPM	0.769	0.045945
IDH2	RPS16	0.77	0.045664
IDH2	NME1	0.77	0.045664
IDH2	AURKB	0.77	0.045664
IDH2	TEKT1	0.77	0.045664
IDH2	ISG20L2	0.77	0.045664
IDH2	TRMT10C	0.77	0.045664
IDH2	PLEKHD1	0.77	0.045664
IDH2	DDX28	0.771	0.045383

IDH2	CCT3	0.771	0.045383
IDH2	QPCTL	0.771	0.045383
IDH2	SLC35E1	0.771	0.045383
IDH2	KIRREL2	0.772	0.045104
IDH2	LIG1	0.772	0.045104
IDH2	NDUFS5	0.772	0.045104
IDH2	TRAPPC2L	0.773	0.044827
IDH2	SLC25A6	0.773	0.044827
IDH2	GCGR	0.773	0.044827
IDH2	OGFOD3	0.773	0.044827
IDH2	RPS28	0.773	0.044827
IDH2	RPL24	0.774	0.044551
IDH2	DNTTIP2	0.774	0.044551
IDH2	NDUFB11	0.774	0.044551
IDH2	SH3D19	0.774	0.044551
IDH2	RPL15	0.774	0.044551
IDH2	COX7C	0.774	0.044551
IDH2	PPIB	0.774	0.044551
IDH2	UBTF	0.775	0.044276
IDH2	RACK1	0.775	0.044276
IDH2	RAN	0.775	0.044276
IDH2	DDX20	0.775	0.044276
IDH2	RPS23	0.775	0.044276
IDH2	DNAAF3	0.775	0.044276
IDH2	CRABP2	0.775	0.044276
IDH2	NOLC1	0.775	0.044276
IDH2	RPS18	0.775	0.044276
IDH2	MED26	0.775	0.044276
IDH2	MAZ	0.776	0.044003
IDH2	MAFF	0.776	0.044003
IDH2	IMP4	0.776	0.044003
IDH2	ECI1	0.776	0.044003
IDH2	PPM1G	0.776	0.044003
IDH2	GFER	0.776	0.044003
IDH2	DUS3L	0.777	0.043731
IDH2	HBZ	0.777	0.043731
IDH2	DOT1L	0.777	0.043731
IDH2	BRD4	0.777	0.043731
IDH2	YEATS4	0.777	0.043731
IDH2	PSMG1	0.778	0.043461
IDH2	CHRNA1	0.778	0.043461
IDH2	RIOK1	0.778	0.043461
IDH2	TNNI3	0.778	0.043461
IDH2	MIDN	0.778	0.043461

IDH2	TNNC2	0.778	0.043461
IDH2	KANK3	0.778	0.043461
IDH2	IFT52	0.778	0.043461
IDH2	MATK	0.778	0.043461
IDH2	ADSL	0.778	0.043461
IDH2	SGTA	0.778	0.043461
IDH2	USE1	0.778	0.043461
IDH2	POLD2	0.779	0.043192
IDH2	ARMC5	0.779	0.043192
IDH2	H2AFZ	0.779	0.043192
IDH2	RPS17	0.779	0.043192
IDH2	HINT1	0.779	0.043192
IDH2	PPP1R1B	0.779	0.043192
IDH2	MRM3	0.779	0.043192
IDH2	ATF4	0.78	0.042925
IDH2	TNKS1BP1	0.78	0.042925
IDH2	CYP27B1	0.78	0.042925
IDH2	RPL12	0.78	0.042925
IDH2	PRR22	0.781	0.042659
IDH2	ALKBH7	0.781	0.042659
IDH2	PHKG1	0.782	0.042394
IDH2	RPL28	0.782	0.042394
IDH2	FOXI1	0.782	0.042394
IDH2	RAD51	0.783	0.042131
IDH2	CXorf40B	0.784	0.041869
IDH2	RBM3	0.784	0.041869
IDH2	ABT1	0.784	0.041869
IDH2	RPL37	0.784	0.041869
IDH2	RPS7	0.784	0.041869
IDH2	CENPW	0.785	0.041608
IDH2	LAGE3	0.785	0.041608
IDH2	NXT1	0.785	0.041608
IDH2	TEN1-CDK3	0.785	0.041608
IDH2	GTPBP4	0.786	0.041349
IDH2	GRWD1	0.786	0.041349
IDH2	RPL32	0.786	0.041349
IDH2	CITED4	0.786	0.041349
IDH2	RPL31	0.786	0.041349
IDH2	YRDC	0.786	0.041349
IDH2	ELP5	0.786	0.041349
IDH2	SNRPB	0.786	0.041349
IDH2	MPST	0.786	0.041349
IDH2	NPB	0.786	0.041349
IDH2	PYGM	0.786	0.041349

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IDH2	FANCG	0.787	0.041091
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IDH2	RPLP2	0.787	0.041091
IDH2	SHMT2	0.787	0.041091
IDH2	CENPV	0.787	0.041091
IDH2	MRPS2	0.788	0.040835
IDH2	YWHAQ	0.788	0.040835
IDH2	ORM1	0.788	0.040835
IDH2	ATIC	0.789	0.04058
IDH2	NOP58	0.789	0.04058
IDH2	MRPL4	0.789	0.04058
IDH2	CSNK1E	0.79	0.040326
IDH2	REXO4	0.79	0.040326
IDH2	PRKCSH	0.79	0.040326
IDH2	NKPD1	0.79	0.040326
IDH2	CCT2	0.791	0.040074
IDH2	RPS8	0.791	0.040074
IDH2	RPL4	0.791	0.040074
IDH2	FABP5	0.791	0.040074
IDH2	FUT3	0.791	0.040074
IDH2	ZNF687	0.792	0.039823
IDH2	ZPR1	0.792	0.039823
IDH2	PMPCA	0.792	0.039823
IDH2	GPATCH3	0.792	0.039823
IDH2	RPL27A	0.793	0.039573
IDH2	CHRM4	0.793	0.039573
IDH2	SND1	0.793	0.039573
IDH2	CNTROB	0.793	0.039573
IDH2	HNRNPM	0.793	0.039573
IDH2	IGFBP6	0.793	0.039573
IDH2	TLCD1	0.794	0.039325
IDH2	SSR2	0.794	0.039325
IDH2	TSSC1	0.794	0.039325
IDH2	TRMT112	0.794	0.039325
IDH2	CIAPIN1	0.794	0.039325
IDH2	LRRC59	0.794	0.039325
IDH2	TSSC4	0.794	0.039325
IDH2	HTATSF1	0.795	0.039078
IDH2	LTV1	0.795	0.039078
IDH2	NUTF2	0.795	0.039078
IDH2	NCL	0.796	0.038832
IDH2	TXNL4A	0.796	0.038832
IDH2	R3HCC1	0.796	0.038832

IDH2	ECSIT	0.796	0.038832
IDH2	HPDL	0.797	0.038587
IDH2	PUF60	0.797	0.038587
IDH2	RPL8	0.797	0.038587
IDH2	SUPT6H	0.797	0.038587
IDH2	METTL1	0.797	0.038587
IDH2	INHBB	0.797	0.038587
IDH2	RPL3	0.798	0.038344
IDH2	WDR62	0.798	0.038344
IDH2	RPL35	0.798	0.038344
IDH2	ATAD3A	0.798	0.038344
IDH2	PLIN4	0.799	0.038103
IDH2	ACTN4	0.799	0.038103
IDH2	C8orf33	0.799	0.038103
IDH2	CCT7	0.799	0.038103
IDH2	TCP1	0.8	0.037862
IDH2	CSPG5	0.8	0.037862
IDH2	NCBP2-AS2	0.8	0.037862
IDH2	SRM	0.8	0.037862
IDH2	RPL10A	0.8	0.037862
IDH2	RPL10	0.8	0.037862
IDH2	RPS5	0.8	0.037862
IDH2	TUBB3	0.8	0.037862
IDH2	NPM1	0.8	0.037862
IDH2	RPL19	0.801	0.037623
IDH2	BCL2L12	0.801	0.037623
IDH2	TIMM22	0.801	0.037623
IDH2	CUEDC2	0.802	0.037385
IDH2	TXN2	0.802	0.037385
IDH2	IL31	0.802	0.037385
IDH2	MRPS15	0.802	0.037385
IDH2	TSSK6	0.802	0.037385
IDH2	SRR	0.802	0.037385
IDH2	PTPN7	0.803	0.037148
IDH2	EXOSC5	0.803	0.037148
IDH2	PPIA	0.804	0.036913
IDH2	SF3B2	0.804	0.036913
IDH2	PGAM5	0.804	0.036913
IDH2	PELP1	0.805	0.036679
IDH2	P2RY11	0.805	0.036679
IDH2	UBE2M	0.805	0.036679
IDH2	RPS21	0.805	0.036679
IDH2	DCTPP1	0.805	0.036679
IDH2	BAG1	0.806	0.036446

IDH2	CLPP	0.806	0.036446
IDH2	RPS19	0.806	0.036446
IDH2	MED27	0.807	0.036214
IDH2	CENPL	0.807	0.036214
IDH2	TUBA1C	0.807	0.036214
IDH2	YTHDF2	0.808	0.035984
IDH2	ILF2	0.808	0.035984
IDH2	CNTD2	0.808	0.035984
IDH2	POM121C	0.809	0.035755
IDH2	LSM4	0.809	0.035755
IDH2	MRPL54	0.81	0.035527
IDH2	LANCL2	0.81	0.035527
IDH2	MRPL21	0.81	0.035527
IDH2	PABPN1L	0.811	0.035301
IDH2	ALYREF	0.811	0.035301
IDH2	TIMM50	0.811	0.035301
IDH2	UBE2I	0.811	0.035301
IDH2	HNRNPL	0.812	0.035075
IDH2	ECHS1	0.812	0.035075
IDH2	RPL37A	0.812	0.035075
IDH2	PPP1R14B	0.812	0.035075
IDH2	NID2	0.813	0.034851
IDH2	NOP53	0.813	0.034851
IDH2	PEX10	0.813	0.034851
IDH2	YTHDF1	0.813	0.034851
IDH2	RNASEH2A	0.813	0.034851
IDH2	ELP6	0.813	0.034851
IDH2	PAF1	0.813	0.034851
IDH2	PLPP2	0.813	0.034851
IDH2	PRPS1	0.814	0.034628
IDH2	RPUSD2	0.814	0.034628
IDH2	USP22	0.814	0.034628
IDH2	HES4	0.814	0.034628
IDH2	EIF3F	0.814	0.034628
IDH2	LRRC42	0.815	0.034407
IDH2	PLK5	0.815	0.034407
IDH2	RAVER1	0.815	0.034407
IDH2	TTLL1	0.815	0.034407
IDH2	HSP90AB1	0.815	0.034407
IDH2	POLE3	0.816	0.034186
IDH2	SRRM1	0.817	0.033967
IDH2	C17orf53	0.817	0.033967
IDH2	RPS2	0.817	0.033967
IDH2	NCAPH2	0.817	0.033967

IDH2	AC104532.1	0.818	0.033749
IDH2	GSG2	0.818	0.033749
IDH2	DNAH10OS	0.818	0.033749
IDH2	ZNF282	0.818	0.033749
IDH2	RANBP1	0.82	0.033317
IDH2	LMNB2	0.82	0.033317
IDH2	PHB	0.82	0.033317
IDH2	SF3A2	0.821	0.033102
IDH2	ZDHHHC11	0.821	0.033102
IDH2	RPL13A	0.821	0.033102
IDH2	TYMS	0.822	0.032889
IDH2	PFDN2	0.822	0.032889
IDH2	TUBA1B	0.822	0.032889
IDH2	C6orf132	0.822	0.032889
IDH2	ZNF668	0.823	0.032677
IDH2	FBL	0.823	0.032677
IDH2	CDT1	0.823	0.032677
IDH2	TIMM13	0.823	0.032677
IDH2	HNRNPUL1	0.824	0.032466
IDH2	TK1	0.824	0.032466
IDH2	NOB1	0.824	0.032466
IDH2	PHACTR1	0.824	0.032466
IDH2	CFAP206	0.825	0.032256
IDH2	EIF3I	0.826	0.032047
IDH2	RPL23A	0.826	0.032047
IDH2	EEF2	0.827	0.03184
IDH2	MRPL37	0.828	0.031634
IDH2	EIF5A	0.829	0.031429
IDH2	C1orf228	0.829	0.031429
IDH2	DDX27	0.829	0.031429
IDH2	MBD3	0.829	0.031429
IDH2	SNRPD1	0.83	0.031225
IDH2	GATAD2A	0.83	0.031225
IDH2	TBC1D3E	0.83	0.031225
IDH2	NABP2	0.831	0.031022
IDH2	MRT04	0.831	0.031022
IDH2	RPL36	0.831	0.031022
IDH2	PABPC4	0.832	0.03082
IDH2	SEMA3B	0.832	0.03082
IDH2	CDC45	0.832	0.03082
IDH2	RNPS1	0.832	0.03082
IDH2	SMARCA4	0.832	0.03082
IDH2	DDB1	0.833	0.030619
IDH2	RCC1L	0.833	0.030619

IDH2	SH3BGR	0.833	0.030619
IDH2	SCARF2	0.833	0.030619
IDH2	ADM5	0.833	0.030619
IDH2	TMEM201	0.833	0.030619
IDH2	TOE1	0.833	0.030619
IDH2	SRSF4	0.834	0.03042
IDH2	SNRPE	0.834	0.03042
IDH2	UBE2S	0.835	0.030221
IDH2	SNRPD2	0.835	0.030221
IDH2	UBALD1	0.835	0.030221
IDH2	RCC2	0.835	0.030221
IDH2	IMPDH2	0.835	0.030221
IDH2	CKS1B	0.836	0.030024
IDH2	ATP5SL	0.836	0.030024
IDH2	SSRP1	0.836	0.030024
IDH2	CCDC86	0.837	0.029828
IDH2	WDR18	0.837	0.029828
IDH2	RPL7A	0.838	0.029633
IDH2	ABCF1	0.838	0.029633
IDH2	SLC25A5	0.838	0.029633
IDH2	ZNF628	0.839	0.029439
IDH2	KEAP1	0.839	0.029439
IDH2	RFC5	0.84	0.029246
IDH2	HNRNPAB	0.84	0.029246
IDH2	BRD2	0.84	0.029246
IDH2	MRPS11	0.84	0.029246
IDH2	PKMYT1	0.841	0.029054
IDH2	C15orf61	0.842	0.028864
IDH2	ATXN7L2	0.842	0.028864
IDH2	ESYT1	0.843	0.028674
IDH2	FAM213B	0.843	0.028674
IDH2	NLE1	0.843	0.028674
IDH2	TEN1	0.844	0.028486
IDH2	NPM3	0.844	0.028486
IDH2	RPLP0	0.845	0.028298
IDH2	ILF3	0.846	0.028112
IDH2	IL13	0.846	0.028112
IDH2	GVQW1	0.847	0.027926
IDH2	COPS3	0.849	0.027559
IDH2	RPL14	0.85	0.027377
IDH2	CHAF1A	0.852	0.027016
IDH2	SMPD4	0.852	0.027016
IDH2	PA2G4	0.852	0.027016
IDH2	E2F1	0.853	0.026836

IDH2	NHP2	0.853	0.026836
IDH2	FAM71F2	0.856	0.026305
IDH2	LONP1	0.856	0.026305
IDH2	UNG	0.857	0.02613
IDH2	GAMT	0.857	0.02613
IDH2	PRMT1	0.859	0.025783
IDH2	H2AFX	0.859	0.025783
IDH2	MCM2	0.86	0.025611
IDH2	PTMA	0.861	0.02544
IDH2	CENPS	0.861	0.02544
IDH2	HNRNPA0	0.862	0.02527
IDH2	DTYMK	0.863	0.025101
IDH2	MCM7	0.864	0.024933
IDH2	CDK4	0.865	0.024766
IDH2	CLN6	0.865	0.024766
IDH2	PRRC2A	0.866	0.0246
IDH2	VAR5	0.866	0.0246
IDH2	FGFR4	0.866	0.0246
IDH2	RBM15B	0.866	0.0246
IDH2	HSF2	0.867	0.024435
IDH2	HNRNPA1	0.868	0.024271
IDH2	GRK7	0.869	0.024108
IDH2	RBBP7	0.871	0.023784
IDH2	SLC25A10	0.871	0.023784
IDH2	SNRPA	0.872	0.023624
IDH2	TOMM40	0.873	0.023464
IDH2	MYL6B	0.874	0.023306
IDH2	PPRC1	0.876	0.022991
IDH2	PYDC1	0.877	0.022836
IDH2	PAFAH1B3	0.877	0.022836
IDH2	IRF2BP1	0.878	0.022681
IDH2	DDX54	0.878	0.022681
IDH2	GCSH	0.88	0.022374
IDH2	CD81	0.88	0.022374
IDH2	HSPBP1	0.88	0.022374
IDH2	TRIM28	0.881	0.022222
IDH2	PRPF19	0.883	0.02192
IDH2	SNU13	0.883	0.02192
IDH2	THAP4	0.883	0.02192
IDH2	TBX4	0.886	0.021475
IDH2	C19orf48	0.888	0.021182
IDH2	APEX1	0.888	0.021182
IDH2	MRPL11	0.889	0.021037
IDH2	SETD1A	0.889	0.021037

IDH2	PEBP1	0.892	0.020607
IDH2	HSPA9	0.894	0.020325
IDH2	COL20A1	0.897	0.019908
IDH2	RPSA	0.897	0.019908
IDH2	MIF	0.9	0.019498
IDH2	NONO	0.903	0.019096
IDH2	AP5S1	0.907	0.018571
IDH2	KHSRP	0.908	0.018442
IDH2	SMARCB1	0.909	0.018314
IDH2	C1QBP	0.913	0.017807
IDH2	KPNA2	0.914	0.017683
IDH2	RPL22L1	0.92	0.016951
IDH2	ZNF263	0.93	0.015791
IDH2	RNF4	0.937	0.015021
IDH2	C6orf48	0.949	0.013777
IDH2	SLC35B2	0.965	0.012261

IDH2, isocitrate dehydrogenase 2; AML, acute myeloid leukemia.

Table SIV. GO enrichment results of *IDH2* co-expression genes.

Category	Term	Count	(%)	P-value	Genes
GOTERM_BP_DIRECT	GO:0006364~rRNA processing	66	0.062086	1.29E-48	RPL18, RNASEL, RPL19, RPL14, RPL15, RPLP2, RPS2, RPS3, DDX27, RPLP0, RPL26L1, RPL10, RPL12, IMP4, EXOSC5, ISG20L2, MRM3, MRTO4, EIF4A3, RPS18, PA2G4, RPS19, RPS16, RPS17, RPS12, LTV1, NOB1, RPL35, RPL27A, SNU13, RPL36, RPL37, RIOK1, RPL30, RPS28, WDR18, RPS29, RPL32, PELP1, RPL6, RPL31, RPL9, RPL8, RPL3, NPM3, RPL7A, RPL10A, RPL4, RPS21, RPS23, RPSA, CCDC86, SUV39H1, RPL23A, RPL24, RPS5, RPS8, FBL, RPL28, RPS7, RPL29, NOLC1, CSNK1E, RPL13A, NOP58, RPL37A
GOTERM_BP_DIRECT	GO:0006614~SRP-dependent cotranslational protein targeting to membrane	44	0.04139	2.46E-41	RPL18, RPL19, RPL14, RPL15, RPL27A, RPL35, RPLP2, RPL36, RPL37, RPS2, RPS3, RPL30, RPS28, RPS29, RPL32, RPL31, RPL6, RPLP0, RPL9, RPL8, RPL3, RPL26L1, RPL10, RPL4, RPL10A, RPL7A, RPL12, RPS21, RPS23, RPSA, RPL24, RPL23A, RPS5, RPL28, RPS8, RPL29, RPS7, RPS18, RPS19, RPS16, RPS17, RPL13A, RPS12, RPL37A
GOTERM_BP_DIRECT	GO:0019083~viral transcription	45	0.042331	1.06E-38	RPL18, RPL19, RPL14, RPL15, RPL27A, RPL35, RPLP2, RPL36, RPL37, RPS2, RPS3, RPL30, RPS28, RPS29, RPL32, RPL31, RPL6, RPLP0, RPL9, RPL8, RPL3, RPL26L1, RPL10, RPL4, RPL10A, RPL7A, POM121C, RPL12, RPS21, RPS23, RPSA, RPL24, RPL23A, RPS5, RPL28, RPS8, RPL29, RPS7, RPS18, RPS19, RPS16, RPS17, RPL13A, RPS12, RPL37A
GOTERM_BP_DIRECT	GO:0000184~nuclear-transcribed mRNA catabolic process, nonsense-mediated decay	46	0.043272	1.12E-38	RPL18, RPL19, RPL14, RPL15, RPL27A, RPL35, RPLP2, RPL36, RPL37, RPS2, RPS3, RPL30, RPS28, RPS29, RPL32, RPL31, RPL6, RPLP0, RPL9, RPL8, RPL3, RPL26L1, RPL10, RPL4, RPL12, RPL10A, RPL7A, RPS21, RPS23, RPSA, RPL24, RPL23A, RNPS1, RPS5, RPL28, RPS8, RPL29, RPS7, EIF4A3, RPS18, RPS19, RPS16, RPS17, RPL13A, RPS12, RPL37A
GOTERM_BP_DIRECT	GO:0006412~translation	61	0.057382	5.18E-38	ABCF1, RPL18, RPL19, RPL14, RPL15, RPLP2, RPL22L1, RPS2, RPS3, RPLP0, SLC25A3, RPL26L1, MRPL37, RPL10, RPL12, MRPL4, SLC25A5, SLC25A6, MRPL9, MRPS2, RPS18, RPS19, RPS16, RPS17, RPS12, NHP2, MRPS15, MRPS11, PABPC4, RPL35, RPL27A, SNU13, RPL36, RPL37, MRPL11, RPL30, RPS28, RPS29, RPL32, RPL31, RPL6, RPL9, RPL8, RPL3, RPL7A, RPL10A, RPL4, RPS21, RPS23, RPSA, RPL23A, RPL24, RPS5, RPS8, RPL28, RPS7, RPL29, MRPL21, RPL13A, SLC25A10, RPL37A
GOTERM_BP_DIRECT	GO:0006413~translational initiation	47	0.044212	8.97E-37	RPL18, ABCF1, RPL19, RPL14, RPL15, RPL27A, RPL35, RPLP2, RPL36, RPL37, RPS2, RPS3, RPL30, RPS28, RPS29, RPL32, RPL31, RPL6, RPLP0, RPL9, EIF3F, RPL8, RPL3, RPL26L1, RPL10, EIF3I, RPL4, RPL12, RPL10A, RPL7A, RPS21, RPS23, RPSA, RPL24, RPL23A, RPS5, RPL28, RPS8, RPL29, RPS7, RPS18, RPS19, RPS16, RPS17, RPL13A, RPS12, RPL37A
GOTERM_BP_DIRECT	GO:0002181~cytoplasmic translation	12	0.011288	3.09E-11	RPL6, RPL31, RPLP0, RPL9, RPL15, RPL8, RPL26L1, RPL36, RPLP2, RPL22L1, RPL29, MRTO4
GOTERM_BP_DIRECT	GO:0000398~mRNA splicing, via spliceosome	26	0.024458	6.08E-09	ALYREF, SNU13, SNRPD1, SNRPD2, RNPS1, SF3A2, HNRNPA1, SF3A1, HNRNPA0, SF3B2, PRPF19, NONO, HNRNPL, HNRNPM, EIF4A3, SRSF4, HNRNPUL1, HTATSF1, RAVER1, SNRPB, SRRM1, LSM4, SNRPA, ZRSR1, SNRPE, TXNL4A
GOTERM_BP_DIRECT	GO:0000027~ribosomal large subunit assembly	9	0.008466	6.47E-08	MRPL11, RPL6, RPL3, NLE1, RPL10, RPL24, RPL23A, RPL12, MRTO4
GOTERM_BP_DIRECT	GO:0071353~cellular response to interleukin-4	8	0.007526	3.53E-06	HSP90AB1, RPLP0, FASN, RPL3, KEAP1, MCM2, TUBA1B, IMPDH2
GOTERM_BP_DIRECT	GO:0006281~DNA repair	21	0.019754	1.59E-05	SSRP1, POLK, EID3, CENPS, UNG, DDB1, LIG1, TRIM28, RPS3, RAD51, RFC5, NONO, DOT1L, RECQL, NABP2, CSNK1E, SMARCB1, NPM1, FANCG, CHAF1A, APEX1
GOTERM_BP_DIRECT	GO:0016032~viral process	24	0.022577	1.94E-05	CCDC86, SLC25A5, RAN, UNG, RBM15B, DDB1, SUV39H1, MFGE8, UBE2I, HNRNPA1, SGTA, SF3B2, RACK1, C1QBP, MORC3, PSMC3, SND1, PSMB2, NPM1, H2AFX, RANBP1, BRD4, POM121C, SUPT6H
GOTERM_BP_DIRECT	GO:0008380~RNA splicing	17	0.015992	2.45E-05	RBM15B, SNRPD1, SNRPD2, RNPS1, SF3A2, SF3B2, NONO, EIF4A3, SRSF4, C1QBP, SNRPB, KHSRP, SRRM1, LSM4, ZPR1, PUF60, SUPT6H
GOTERM_BP_DIRECT	GO:0098609~cell-cell adhesion	22	0.020695	3.99E-05	HSP90AB1, STK38, RPL14, RAN, RPL15, SNX1, RPL24, RPL23A, EEF2, RPS2, RPL29, TNKS1BP1, RACK1, ATXN2L, RPL6, ATIC, SND1, LRRC59, FASN, RANBP1, RPL7A, PUF60

GOTERM_BP_DIRECT	GO:0042274~ribosomal small subunit biogenesis	6	0.005644	6.48E-05	RPS28, RPS19, RPS16, RPS17, LTV1, RPS7
GOTERM_BP_DIRECT	GO:0051170~nuclear import	6	0.005644	1.21E-04	SNRPB, SNRPD1, SNRPD2, DDX20, SNRPE, HNRNPA1
GOTERM_BP_DIRECT	GO:0006260~DNA replication	15	0.01411	1.57E-04	ING5, GINS2, SSRP1, POLK, LIG1, MCM2, RBBP7, RNASEH2A, CDT1, RFC5, CDC45, MCM7, POLE3, POLD2, CHAF1A
GOTERM_BP_DIRECT	GO:0000028~ribosomal small subunit assembly	6	0.005644	1.61E-04	RPSA, RPS28, RPS19, RPS17, MRPS11, RPS5
GOTERM_BP_DIRECT	GO:0006405~RNA export from nucleus	9	0.008466	1.64E-04	NXT1, EIF4A3, SRSF4, ALYREF, SRRM1, RNPS1, RANBP1, POM121C, HNRNPA1
GOTERM_BP_DIRECT	GO:0006397~mRNA processing	16	0.015051	2.13E-04	RNASEL, RBM15B, SF3A2, SF3A1, HNRNPA1, HNRNPA0, SF3B2, NONO, HNRNPL, SRSF4, C1QBP, KHSRP, SRRM1, ZPR1, PUF60, SUPT6H
GOTERM_BP_DIRECT	GO:0006396~RNA processing	11	0.010348	4.74E-04	ZFC3H1, HNRNPL, HNRNPUL1, RBM3, PABPC4, SNRPD1, LSM4, DDX20, DDX54, SF3A1, MRM3
GOTERM_BP_DIRECT	GO:1904874~positive regulation of telomerase RNA localization to Cajal body	5	0.004703	7.17E-04	CCT7, TCP1, CCT2, CCT3, NHP2
GOTERM_BP_DIRECT	GO:0000245~spliceosomal complex assembly	6	0.005644	7.69E-04	PRPF19, SNRPD1, LSM4, SNRPD2, SNRPE, TXNL4A
GOTERM_BP_DIRECT	GO:0000387~spliceosomal snRNP assembly	6	0.005644	0.001096	SNRPB, SNRPD1, LSM4, SNRPD2, DDX20, SNRPE
GOTERM_BP_DIRECT	GO:1904871~positive regulation of protein localization to Cajal body	4	0.003763	0.001189	CCT7, TCP1, CCT2, CCT3
GOTERM_BP_DIRECT	GO:0032212~positive regulation of telomere maintenance via telomerase	6	0.005644	0.002043	CCT7, TCP1, CCT2, CCT3, AURKB, HNRNPA1
GOTERM_BP_DIRECT	GO:0006457~protein folding	14	0.01317	0.002159	HSP90AB1, TCP1, HSP90AA1, TXN2, CCT2, CCT3, PRKCSH, HSPBP1, CCT7, PFDN2, PPIA, TXN, PDRG1, HSPA9
GOTERM_BP_DIRECT	GO:0007067~mitotic nuclear division	17	0.015992	0.002282	YEATS4, CENPS, RAN, ANAPC4, BORA, PKMYT1, UBE2I, AURKB, RPS3, PLK5, RCC2, NOLC1, CENPV, CENPW, AKAP8, TUBB3, TXNL4A
GOTERM_BP_DIRECT	GO:0006369~termination of RNA polymerase II transcription	8	0.007526	0.002353	EIF4A3, SRSF4, MAZ, ALYREF, SNRPB, SRRM1, RNPS1, SNRPE
GOTERM_BP_DIRECT	GO:0070125~mitochondrial translational elongation	9	0.008466	0.003066	TUFM, MRPL11, MRPL4, MRPS15, MRPL21, MRPS11, MRPL54, MRPL37, MRPL9
GOTERM_BP_DIRECT	GO:0042254~ribosome biogenesis	6	0.005644	0.003482	RPS18, RPS28, RPLP0, SNU13, RPL7A, GNL2
GOTERM_BP_DIRECT	GO:0045727~positive regulation of translation	7	0.006585	0.004013	ABCF1, EIF4A3, RBM3, NPM1, EEF2, QARS, CDK4
GOTERM_BP_DIRECT	GO:0006164~purine nucleotide biosynthetic process	4	0.003763	0.004286	ATIC, ADSL, IMPDH2, PRPS1
GOTERM_BP_DIRECT	GO:0003009~skeletal muscle contraction	5	0.004703	0.004548	HSP90AA1, TNNC2, EEF2, CHRNB1, TNNI3
GOTERM_BP_DIRECT	GO:0051131~chaperone-mediated protein complex assembly	4	0.003763	0.005454	LONP1, HSP90AA1, CCT2, BBS10

GOTERM_BP_DIRECT	GO:0050821~protein stabilization	11	0.010348	0.005963	CCT7, HSP90AB1, GTPBP4, TCP1, HSP90AA1, PPIB, MORC3, PHB, CCT2, CCT3, STK4
GOTERM_BP_DIRECT	GO:0006259~DNA metabolic process	5	0.004703	0.006115	NME1, RAN, LIG1, KPNA2, TK1
GOTERM_BP_DIRECT	GO:0071897~DNA biosynthetic process	5	0.004703	0.006115	TYMS, POLE3, LIG1, PHB, TK1
GOTERM_BP_DIRECT	GO:0030490~maturation of SSU-rRNA	4	0.003763	0.006795	RPS28, RPS19, NOB1, SNU13
GOTERM_BP_DIRECT	GO:0034080~CENP-A containing nucleosome assembly	6	0.005644	0.007546	CENPM, CENPL, CENPS, NPM1, CENPW, RBBP7
GOTERM_BP_DIRECT	GO:0000470~maturation of LSU-rRNA	4	0.003763	0.008315	SNU13, RPL10A, RPL7A, NHP2
GOTERM_BP_DIRECT	GO:0000082~G1/S transition of mitotic cell cycle	9	0.008466	0.009176	TYMS, EIF4EBP1, CDC45, MCM7, PKMYT1, RANBP1, MCM2, CDK4, CDT1
GOTERM_BP_DIRECT	GO:0006611~protein export from nucleus	5	0.004703	0.010243	NXT1, RAN, EIF5A, NUTF2, HSPA9
GOTERM_BP_DIRECT	GO:0045471~response to ethanol	9	0.008466	0.010835	TUFM, TYMS, EIF4EBP1, GNRH1, RPL15, PEMT, IL13, EEF2, RPL10A
GOTERM_BP_DIRECT	GO:0070126~mitochondrial translational termination	8	0.007526	0.011895	MRPL11, MRPL4, MRPS15, MRPL21, MRPS11, MRPL54, MRPL37, MRPL9
GOTERM_BP_DIRECT	GO:1901838~positive regulation of transcription of nuclear large rRNA transcript from RNA polymerase I promoter	3	0.002822	0.015753	SMARCB1, NCL, SMARCA4
GOTERM_BP_DIRECT	GO:0006626~protein targeting to mitochondrion	5	0.004703	0.015844	SLC25A6, TOMM40, TOMM22, TIMM13, TIMM22
GOTERM_BP_DIRECT	GO:0042769~DNA damage response, detection of DNA damage	5	0.004703	0.019244	RFC5, DDB1, MRPS11, POLD2, RPS3
GOTERM_BP_DIRECT	GO:0006283~transcription-coupled nucleotide-excision repair	7	0.006585	0.019611	RFC5, PRPF19, POLK, LIG1, DDB1, COPS3, POLD2
GOTERM_BP_DIRECT	GO:0000447~endonucleolytic cleavage in ITS1 to separate SSU-rRNA from 5.8S rRNA and LSU-rRNA from tricistronic rRNA transcript (SSU-rRNA, 5.8S rRNA, LSU-rRNA)	3	0.002822	0.020608	RPSA, ABT1, RPS21
GOTERM_BP_DIRECT	GO:0006406~mRNA export from nucleus	8	0.007526	0.025265	NXT1, EIF4A3, SRSF4, ALYREF, SRRM1, EIF5A, RNPS1, POM121C
GOTERM_BP_DIRECT	GO:0051301~cell division	18	0.016932	0.025384	CKS1B, CENPS, RAN, LIG1, ANAPC4, BORA, UBE2I, CDK4, RPS3, PLK5, RCC2, CENPV, CKS2, CENPW, UBE2S, TUBA1B, TUBA1C, TXNL4A
GOTERM_BP_DIRECT	GO:1904851~positive regulation of establishment of protein localization to telomere	3	0.002822	0.025997	CCT7, TCP1, CCT2

GOTERM_BP_DIRECT	GO:0000083~regulation of transcription involved in G1/S transition of mitotic cell cycle	4	0.003763	0.027321	TYMS, CDC45, BRD4, CDT1
GOTERM_BP_DIRECT	GO:0051289~protein homotetramerization	6	0.005644	0.028858	SHMT2, SRR, NAXE, IMPDH2, DCTPP1, TK1
GOTERM_BP_DIRECT	GO:0030163~protein catabolic process	5	0.004703	0.029595	LONP1, PSMC3, USE1, NAPSA, CLN6
GOTERM_BP_DIRECT	GO:0006297~nucleotide-excision repair, DNA gap filling	4	0.003763	0.030574	RFC5, POLK, LIG1, POLD2
GOTERM_BP_DIRECT	GO:0006268~DNA unwinding involved in DNA replication	3	0.002822	0.031886	MCM7, MCM2, RAD51
GOTERM_BP_DIRECT	GO:0045793~positive regulation of cell size	3	0.002822	0.031886	HSP90AB1, HSP90AA1, CDK4
GOTERM_BP_DIRECT	GO:0000375~RNA splicing, via transesterification reactions	4	0.003763	0.034021	SRSF4, KHSRP, SRRM1, TXNL4A
GOTERM_BP_DIRECT	GO:0006913~nucleocytoplasmic transport	4	0.003763	0.034021	RAN, RBM15B, NPM1, EIF5A
GOTERM_BP_DIRECT	GO:0010501~RNA secondary structure unwinding	5	0.004703	0.037118	DDX27, EIF4A3, DDX28, DDX20, DDX54
GOTERM_BP_DIRECT	GO:0007568~aging	10	0.009407	0.049276	TYMS, LONP1, NAPEPLD, GNRH1, TGFBR2, SRR, EEF2, AURKB, MBD3, APEX1
GOTERM_BP_DIRECT	GO:0097421~liver regeneration	4	0.003763	0.049714	TYMS, RPL19, RPS16, RPL32
GOTERM_BP_DIRECT	GO:0007049~cell cycle	12	0.011288	0.049973	RACK1, CKS1B, NOLC1, RBL2, SMARCB1, DTYMK, SUV39H1, MCM2, USP22, AURKB, PDCC6IP, CHAF1A
GOTERM_CC_DIRECT	GO:0005840~ribosome	52	0.048916	1.73E-39	RPL18, ABCF1, RPL19, RPL14, RPL15, RPLP2, RPL22L1, RPS2, RPS3, RPLP0, MRPL37, RPL10, MRPL4, MRPL9, MRPS2, RPS18, RPS19, RPS16, RPS17, NLE1, MRPS15, MRPS11, RPL35, RPL27A, RPL36, RPL37, MRPL11, RPL30, RPS28, RPL32, RPS29, RPL31, RPL6, RPL9, RPL8, RPL3, MRPL54, RPL10A, RPL7A, RPL4, RPS21, APEX1, RPS23, RPL23A, RPL24, RPS8, RPL28, RPS7, RPL29, MRPL21, RPL13A, RPL37A
GOTERM_CC_DIRECT	GO:0022625~cytosolic large ribosomal subunit	33	0.031043	3.68E-32	RPL18, RPL19, RPL14, RPL15, RPL27A, RPL35, SNU13, RPLP2, RPL36, RPL37, RPL22L1, RPL30, RPL32, RPL6, RPL31, RPL9, RPLP0, RPL8, RPL3, RPL26L1, RPL10, RPL4, RPL7A, RPL10A, RPL12, RPL24, RPL23A, RPL28, RPL29, MRTO4, RPL13A, RPL37A, NHP2
GOTERM_CC_DIRECT	GO:0005654~nucleoplasm	176	0.165561	8.60E-29	RBM15B, RBM3, CRABP2, SNRPD1, PKMYT1, SNRPD2, MED23, AURKB, CIAPIN1, NONO, EIF4EBP1, BRPF1, MED26, MED27, SRRM1, LSM4, H2AFX, DDX20, RNF34, IMP4, POLK, RBL2, RAN, LIG1, ANAPC4, ISG20L2, GID8, RNASEH2A, MRTO4, RFC5, RPS18, PA2G4, RPS19, CEP162, NABP2, RPS16, RPS17, SNRPB, RPS12, SNRPA, AKAP8, PAF1, SNRPE, SMARCA4, FGFR4, EID3, STAM2, SETD1A, KEAP1, RIOK1, HNRNPL, HNRNPM, RPS28, RPS29, PELP1, SMARCB1, HTATSF1, METTL1, NPM1, PSMB2, RPL3, RPS21, NAXE, TCF3, RPS23, HNRNPAB, GINS2, RPSA, MAFF, YEATS4, KANSL2, PHB, SUV39H1, TOMM40, RNPS1, HNRNPA1, RPS5, HNRNPA0, RPS8, QRIC1, RPS7, TNKS1BP1, ATF4, SRSF4, RNF4, NOLC1, PSMC3, POLD2, PPRC1, NUTF2, FABP5, PUF60, E2F1, ABCF1, HSP90AB1, GAR1, COPS3, TIMM50, TRMT10C, RPS2, PTMA, RPS3, CDT1, LONP1, CDC45, PRMT1, MCM7, ZPR1, BRD4, FANCG, HSP90AA1, DDB1, EXOSC5, IGFALS, UBE2I, MBD3, MCM2, IRF2BP1, CDK4, ECSIT, RBBP7, NCL, RAD51, MED7, PFDN2, PPM1G, EIF4A3, RECQL, TXN, KHSRP, NCAPH2, LTV1, KPNA2, NHP2, CUEDC2, NXT1, ING5, CKS1B, ING2, UNG, NOB1, SNU13, SF3B2, MIF, PRPF19, TYMS, WDR18, TOE1, MORC3, GATAD2A, SNAP23, APEX1, ZNF470, ZNF263, SSRP1, CENPM, CENPL, CENPS,

					ALYREF, TRIM28, ILF3, SF3A2, SF3A1, FBL, DOT1L, PSMG1, ILF2, UBTF, CSNK1E, HNRNPUL1, CENPV, NOP58, CENPW, SH3D19, TRMT112, TXNL4A
GOTERM_CC_DIRECT	GO:0005730~nucleolus	81	0.076196	1.71E-22	RPL18, RPL19, GAR1, RBM3, RBM15B, RPS2, CIAPIN1, RPS3, NONO, DDX27, DDX28, GRWD1, MED27, SLC25A3, HIRIP3, ZPR1, RPL12, FANCG, GNL2, IMP4, GTPBP4, RBL2, RAN, EXOSC5, ISG20L2, CDK4, NCL, RAD51, MRTO4, PFDN2, PA2G4, RPS19, RCC2, C1QBP, ABT1, NLE1, SNRPA, DNTTIP2, AKAP8, NHP2, SMARCA4, MIDN, TXN2, RPL35, SNU13, RPL36, TIMM13, TYMS, HNRNPM, TOE1, PELP1, SMARCB1, REXO4, RPL9, METTL1, RPL8, NPM1, RPL3, NPM3, RPL7A, RPL10A, RPL4, APEX1, RPS23, HSPA9, SSRP1, CCDC86, ILF3, RPL23A, FBL, RPS7, PLK5, ILF2, UBTF, NOLC1, RPL13A, TDP2, NOP58, CENPW, CHAF1A, DDX54
GOTERM_CC_DIRECT	GO:0005829~cytosol	164	0.154273	2.46E-15	RPL18, RNASEL, DYNC1LI2, RPL19, RPL14, TNNC2, RPL15, DTYMK, CRABP2, TRAPPC2L, SNRPD1, PKMYT1, EIF5A, SNRPD2, RPLP2, CCT2, CCT3, AURKB, EIF4EBP1, PPP1R1B, RPLP0, RPL26L1, SH3BGR, SRRM1, RPL10, LSM4, RPL12, DDX20, RNF34, DCTPP1, MATK, RAN, ANAPC4, EEF2, YTHDF2, STK4, RPS18, RPS19, CEP162, RPS16, RCC2, RPS17, NME1, SNRPB, RPS12, ADSL, PDCCD6IP, SNRPE, MPST, PRPS1, SRM, STAM2, SNX1, KEAP1, RIOK1, PYDC1, RIC1, TK1, IRAK4, RPS28, RPS29, RPL6, RPL9, STX16, RPL8, NPM1, PSMB2, EIF3F, RPL3, IDH2, EIF3I, DOPEY1, RPL4, RPL7A, RPL10A, RPS21, NAXE, RPS23, PTPN7, RPSA, PHACTR1, TGFB2, FAM213B, RPL23A, RNPS1, TNNI3, RPS5, RPS8, RPS7, TNKS1BP1, CCT7, PSMC3, PPIA, UBA3, RHOT1, NUTF2, RPL37A, FABP5, HSP90AB1, ABCF1, BORA, QARS, RPS2, CDT1, RPS3, PRMT1, MCM7, BAG1, IMPDH2, HSP90AA1, PHKG1, EXOSC5, HERC4, UBE2I, CDK4, KIDINS220, ATP6V1C1, EIF4A3, C1QBP, UBE2M, TXN, KHSRP, PEBP1, INPP4A, LTV1, KPNA2, NXT1, MIDN, NOB1, RPL27A, RPL35, RPL36, RPL37, VARS, RACK1, TYMS, RPL30, RPL32, ATIC, MYL6B, RPL31, LANCL2, PAFAH1B3, FASN, PREPL, EXOC1, DUS3L, TCP1, CENPM, CENPL, CENPS, ALYREF, AP5S1, RPL24, RPL28, SGTA, RPL29, PYGM, CSNK1E, RPL13A, YWHAQ, GAMT, SH3D19, TRMT112
GOTERM_CC_DIRECT	GO:0030529~intracellular ribonucleoprotein complex	27	0.025399	4.32E-15	PABPC4, SNRPD1, SNU13, RPS3, HNRNPL, HNRNPM, RPLP0, NPM1, RPL4, HNRNPAB, ACTN4, ILF3, EEF2, RPS5, NCL, HNRNPA1, HNRNPA0, RPS8, RPS7, EIF4A3, PA2G4, ILF2, CSNK1E, RPL13A, HNRNPUL1, SNRPB, PUF60
GOTERM_CC_DIRECT	GO:0016020~membrane	120	0.112883	1.02E-13	RPL18, DYNC1LI2, RPL19, QPCTL, RPL14, RPL15, PKMYT1, RPLP2, EIF5A, CSPG5, NONO, SND1, RPLP0, LRRC59, RPL10, DDX20, RPL12, GNL2, GTPBP4, RAN, EEF2, MFGE8, BCL2L12, OGFOD3, RPS18, PA2G4, RPS19, RPS16, RCC2, RPS17, NME1, RPS12, PDCCD6IP, PAF1, AKAP8, SMARCA4, SNX1, PRRC2A, RIC1, HNRNPL, HNRNPM, PELP1, RPL6, RPL9, EIF3F, PSMB2, NPM1, RPL8, STX16, SCARB2, RPL10A, RPL7A, RPL4, RPS23, RPSA, PHB, RPS5, HNRNPA1, RPS8, RPS7, PPIB, PPIA, PSMC3, RHOT1, UTS2R, DDX54, ABCF1, HSP90AB1, RPS2, RPS3, LONP1, MCM7, SLC25A3, YRDC, IMPDH2, HSP90AA1, SLC25A5, KIDINS220, NCL, RECQL, PPM1G, EIF4A3, C1QBP, CD81, KHSRP, TOMM22, NCAPH2, KPNA2, CLN6, TUFM, RPL35, RPL27A, RPL36, GCGR, ESYT1, NUFIP2, PLPP2, PRPF19, RPL30, ATXN2L, RPL32, SLC35B2, RPL31, ATIC, FUT3, FASN, PAFAH1B3, SEC22B, EXOC1, ALYREF, ILF3, RPL24, SGTA, FBL, RPL28, RPL29, ILF2, RPL13A, YWHAQ, NOP58
GOTERM_CC_DIRECT	GO:0005925~focal adhesion	39	0.036687	1.36E-11	RPL18, RPL19, RPLP2, RPS2, SCARF2, RPS3, RPL30, RPS29, RPL31, RPL6, CD46, RPLP0, RPL9, STX16, NPM1, RPL8, RPL3, RPL4, RPL10A, SCARB2, RPL7A, SNAP23, RPL12, HSPA9, ACTN4, RPS5, RPS8, RPS7, RPS18, RPS19, RPS16, PPIB, RPS17, RPL13A, PPIA, CD81, YWHAQ, RPL37A, PDCCD6IP
GOTERM_CC_DIRECT	GO:0022627~cytosolic small ribosomal subunit	15	0.01411	2.28E-11	RPSA, RPS2, RPS5, RPS8, RPS3, RPS7, RPS18, RPS28, RPS19, RPS16, RPS29, RPS17, RPS12, RPS21, RPS23
GOTERM_CC_DIRECT	GO:0015935~small ribosomal subunit	12	0.011288	5.10E-11	RACK1, RPSA, RPS18, RPS28, RPS29, RPS16, RPS2, RPS21, RPS5, MRPS2, RPS23, RPS3
GOTERM_CC_DIRECT	GO:0005634~nucleus	216	0.203189	9.39E-11	RPL18, RPL15, AURKB, CITED4, NONO, BRPF1, PPP1R1B, RAVR1, MED26, RPLP0, MED27, H2AFZ, H2AFX, POLK, GTPBP4, RAN, LIG1, ANAPC4, BCL2L12, RPS18, RCC2, ABT1, NME1, HES4, NLE1, SUPT6H, PABPC4, PRRC2A, TEN1, HTATSF1, TCF3, HNRNPAB, RPSA, CCDC86, PHB, HNRNPA1, HNRNPA0, ZNF628, RPS8, RPS7, TNKS1BP1, SRSF4, RNF4, WDR62, CSRN1P, UBA3, PPRC1,

					CHAF1A, FOXI1, ZNF19, GARI1, COPS3, CDT1, LONP1, BAG1, HSF2, SLC25A3, BRD4, ZPR1, USP15, TUBB3, PGAP2, ZNF282, ZC3H7A, SLC25A5, SLC25A6, EXOSC5, HERC4, HERC3, ZNF687, MBD3, RBBP7, ECSIT, RAD51, PFDN2, TXN, LTV1, ZNF484, UNG, SNU13, NUFIP2, ZNF75D, PRPF19, RPL30, TOE1, REXO4, LANCL2, TEK1, GATAD2A, FAM71F2, ZNF267, ZNF263, SSRP1, BRD2, SHMT2, AP5S1, TBX4, TRIM28, PHF11, ILF3, ZNF668, SF3A2, SGTA, DOT1L, ILF2, UBTF, CSNK1E, HNRNPUL1, NOP58, GAMT, TXNL4A, STK38, RBM3, CRABP2, DTYMK, SNRPD1, EIF5A, DDX28, SND1, SRRM1, HIRIP3, DDX20, ZNF574, RNF34, GNL2, RBL2, ACTN4, EEF2, YTHDF2, STK4, MRTO4, PA2G4, NABP2, SNRPB, DNTTIP2, AKAP8, SNRPE, SMARCA4, EID3, SETD1A, PYDC1, HNRNPL, IRAK4, ZNF699, PELP1, RPL6, SMARCB1, POLE3, RPL9, METTL1, NPM1, PSMB2, RPL3, RPL4, RPL7A, RPL10A, REEP6, GINS2, PHACTR1, MAFF, SUV39H1, RNPS1, RPL23A, ATF4, PPIB, PPIA, PSMC3, SLC25A10, LAGE3, POLD2, RPL37A, DDX54, HSP90AB1, E2F1, HINT1, RPS2, PTMA, RPS3, CDC45, PRMT1, MAZ, MCM7, GRWD1, RANBP1, IMPDH2, TUBA1C, HSP90AA1, DDB1, ELP5, UBE2I, MCM2, CDK4, NCL, PPM1G, RECQL, C1QBP, PEBP1, EMC2, KPNA2, ING5, ING2, RACK1, TYMS, TUBA3E, APEX1, CNTD2, ALYREF, VSX2, FBL, GSG2, PSMG1, TDP2, RPL13A, CENPV, SCAND1, TSSK6
GOTERM_CC_DIRECT	GO:0005737~cytoplasm	209	0.196604	1.91E-10	RPL18, RPL19, RPL14, TRAPPC2L, GFER, CCT2, ITS2, CCT3, CITED4, CIAPIN1, BRPF1, PPP1R1B, RAVR1, RPLP0, MED27, GTPBP4, RAN, RPS19, NAPEPLD, CEP162, NME1, CNTROB, PABPC4, PRRC2A, RPS28, RPS29, DNAAF3, KBTBD4, STX16, RPS21, NAXE, TCF3, RPS23, HNRNPAB, RPSA, RARS2, PHB, FAM213B, HNRNPA1, RPS8, RPS7, TNKS1BP1, CCT7, RNF4, NOLC1, ABCF1, LZTS3, COPS3, QARS, TTLL1, LONP1, BAG1, HSF2, BRD4, FANCG, ZPR1, USP15, TUBB3, EXOSC5, HERC4, HERC3, ZNF687, MBD3, ECSIT, RAD51, EIF4A3, PFDN2, ZDHHC17, BNIP1, TXN, LTV1, NHP2, NXT1, RPL35, RPL36, FEM1A, NUFIP2, MIF, PRPF19, RPL30, ATXN2L, CYP27B1, WDR18, TOE1, PLIN4, LANCL2, TEK1, FASN, C12ORF4, SNAP23, EXOC1, ZNF263, SSRP1, BRD2, SHMT2, AP5S1, ILF3, RPL24, SGTA, RPL28, ILF2, PYGM, CSNK1E, CFAP206, YWHAQ, NOP58, GAMT, TXNL4A, STK38, RBM3, CRABP2, IL13, EIF5A, EIF4EBP1, DDX28, SND1, PDRG1, DDX20, RNF34, RBL2, ACTN4, EEF2, YTHDF2, YTHDF1, RNASEH2A, STK4, MRTO4, PA2G4, NABP2, SNRPA, PDCD6IP, PAF1, FGFR4, EID3, STAM2, SNX1, KEAP1, HNRNPL, IRAK4, PELP1, RPL9, METTL1, RPL8, NPM1, PSMB2, RPL3, SRR, RPL4, RPL7A, RPL10A, PTPN7, TOMM40, ARMC5, RNPS1, RPL23A, QRICH1, PLK5, ATF4, PSMC3, FABP5, HSP90AB1, HINT1, RPS2, PTMA, RPS3, PRMT1, CDC45, MCM7, GRWD1, ZFYVE16, ALS2CR12, YRDC, RANBP1, CDK16, ZCCHC6, PPP1R14B, IMPDH2, TUBA1C, HSP90AA1, DDB1, ELP5, UBE2I, MCM2, RECQL, PPM1G, C1QBP, PABPN1L, UBE2M, INPP4A, EMC2, UBE2S, KPNA2, AOC3, CUEDC2, ING2, RACK1, TYMS, PAFAH1B3, TUBA3E, APEX1, HSPA9, TCP1, GSG2, PSMG1, TDP2, RPL13A, VSTM2L, CENPV, TSSK6
GOTERM_CC_DIRECT	GO:0005739~mitochondrion	75	0.070552	3.66E-09	HSP90AB1, E2F1, NDUFAF7, DTYMK, GFER, QARS, TIMM50, TRMT10C, NDUFS5, ATAD3A, LONP1, DDX28, PGAM5, SND1, SLC25A3, MRPL37, YRDC, FANCG, MTO1, RCC1L, NDUFB11, MRPL4, RPUSD2, SLC25A5, LIG1, SLC25A6, MRPL9, RHBDD1, ECSIT, MRPS2, RAD51, MRM3, PFDN2, C1QBP, BNIP1, TXN, CLPP, ADSL, TOMM22, EMC2, AKAP8, PMPCA, MPST, TUFM, ATP5SL, MRPS15, TXN2, UNG, MRPS11, COX7C, ECHS1, TIMM13, VARS, RACK1, TYMS, CYP27B1, ATIC, IDH2, FASN, GCSH, NAXE, APEX1, HSPA9, EC11, MAFF, SHMT2, GNRH1, RARS2, PHB, MCAT, TOMM40, ILF3, CCT7, RHOT1, YWHAQ
GOTERM_CC_DIRECT	GO:0005686~U2 snRNP	8	0.007526	6.30E-07	HTATSF1, SNRPB, SNRPD1, SNRPD2, SF3A2, SNRPE, SF3A1, SF3B2
GOTERM_CC_DIRECT	GO:0071013~catalytic step 2 spliceosome	13	0.012229	7.74E-06	PRPF19, HNRNPM, EIF4A3, ALYREF, SNRPB, SNRPD1, SRRM1, SNRPD2, SF3A2, HNRNPA1, SNRPE, SF3A1, SF3B2
GOTERM_CC_DIRECT	GO:0070062~extracellular exosome	114	0.107239	1.07E-05	RPL14, CRABP2, RPL15, SNRPD2, RPLP2, EIF5A, CCT2, CCT3, ITS2, SND1, CD46, RPLP0, H2AFZ, RPL26L1, H2AFX, RPL12, ACTN4, RBL2, RAN, EEF2, MFGE8, NAPS, OGFO3, RPS18, PA2G4, RPS19, NAPEPLD, RPS16, RPS17, NME1, SNRPB, PDCD6IP, SNRPE, MPST, C6ORF120, PRRC2A, HNRNPL, HNRNPM, RPS28, RPS29, PSMB2, IDH2, RPL3, EIF3I, SCARB2, RPL10A, RPL7A, RPL4, NAXE, RPSA, PHB, FAM213B, TOMM40, RPL23A, RPS5, HNRNPA1, RPS8, RPS7, CCT7, PPIB, PPIA, NUTF2, RPL37A, FABP5, HSP90AB1,

					HINT1, IGFBP6, RPS2, PTMA, RPS3, SLC25A3, SEMA3B, TUBA1B, IMPDH2, TUBB3, HSP90AA1, SLC25A5, DDB1, IGFALS, NCL, ATP6V1C1, PFDN2, CD81, UBE2M, TXN, PEBP1, TUFM, ECHS1, MIF, RACK1, RPL30, MYL6B, RPL31, ATIC, FUT3, FASN, PAFAH1B3, SNAP23, HSPA9, ECII, SHMT2, TCP1, ALYREF, RPL24, NID2, TMED9, FBL, RPL28, ORM1, PYGM, HBZ, YWHAQ, GAMT, TRMT112
GOTERM_CC_DIRECT	GO:0042645~mitochondrial nucleoid	9	0.008466	2.64E-05	TUFM, SHMT2, LONP1, ATAD3A, DDX28, SLC25A5, LRRC59, TRMT10C, HSPA9
GOTERM_CC_DIRECT	GO:0005743~mitochondrial inner membrane	29	0.02728	3.57E-05	TUFM, MRPS15, MRPS11, COX7C, TIMM50, TIMM13, RPS3, MRPL11, TYMS, NDUFS5, ATAD3A, MRPL54, IDH2, SLC25A3, MRPL37, ECII, NDUFB11, MRPL4, SHMT2, SLC25A5, PHB, SLC25A6, MRPL9, ECSIT, TIMM22, MRPL21, SLC25A10, TOMM22, PMPCA
GOTERM_CC_DIRECT	GO:0005681~spliceosomal complex	12	0.011288	5.17E-05	HNRNPM, SNRPB, LSM4, SNRPA, SNRPD2, ZRSR1, SF3A2, SNRPE, HNRNPA1, SF3A1, SF3B2, TXNL4A
GOTERM_CC_DIRECT	GO:0031012~extracellular matrix	22	0.020695	7.12E-05	HSP90AA1, RAN, SLC25A5, SLC25A6, MFGE8, CCT2, EEF2, NID2, RPS5, RPS3, RPS7, HNRNPM, RPL30, RPS18, RPS19, RPS16, RPS17, RPL9, RPL12, LOXL1, COL20A1, HSPA9
GOTERM_CC_DIRECT	GO:0034709~methylosome	5	0.004703	2.31E-04	PRMT1, SNRPB, SNRPD1, SNRPD2, SNRPE
GOTERM_CC_DIRECT	GO:0005913~cell-cell adherens junction	22	0.020695	2.40E-04	HSP90AB1, STK38, RPL14, RAN, RPL15, SNX1, RPL24, RPL23A, EEF2, RPS2, RPL29, TNKS1BP1, RACK1, ATXN2L, RPL6, ATIC, SND1, LRRC59, FASN, RANBP1, RPL7A, PUF60
GOTERM_CC_DIRECT	GO:0005759~mitochondrial matrix	22	0.020695	2.84E-04	ECII, ALKBH7, RNASEL, SHMT2, NDUFAF7, RARS2, TXN2, DTYMK, ECHS1, QARS, TRMT10C, MMAB, RPS3, RAD51, TYMS, LONP1, C1QBP, CLPP, IDH2, GCSH, NAXE, PMPCA
GOTERM_CC_DIRECT	GO:0016607~nuclear speck	16	0.015051	4.42E-04	NXT1, ALYREF, SETD1A, RNPS1, TIMM50, SF3A2, NONO, PRPF19, EIF4A3, SRSF4, ATXN2L, TOE1, GATAD2A, SRRM1, RNF34, APEX1
GOTERM_CC_DIRECT	GO:0015934~large ribosomal subunit	5	0.004703	4.47E-04	RPL13A, RBM3, RPL27A, RPL26L1, RPL10A
GOTERM_CC_DIRECT	GO:0042788~polysomal ribosome	4	0.003763	6.58E-04	ABCF1, EEF2, RPL7A, NUFIP2
GOTERM_CC_DIRECT	GO:0019013~viral nucleocapsid	6	0.005644	8.80E-04	HNRNPL, HNRNPM, HNRNPUL1, SNRPB, SNRPD1, HNRNPA1
GOTERM_CC_DIRECT	GO:0043209~myelin sheath	13	0.012229	9.89E-04	TUFM, TCP1, HSP90AA1, SLC25A5, PHB, SLC25A3, FAM213B, CCT2, CCT3, PDCD6IP, TUBA1B, MIF, HSPA9
GOTERM_CC_DIRECT	GO:0030532~small nuclear ribonucleoprotein complex	5	0.004703	9.95E-04	SNRPB, SNRPD1, SNRPD2, SF3A2, SNRPE
GOTERM_CC_DIRECT	GO:0005682~U5 snRNP	5	0.004703	9.95E-04	SNRPB, SNRPD1, SNRPD2, SNRPE, TXNL4A
GOTERM_CC_DIRECT	GO:0034719~SMN-Sm protein complex	5	0.004703	9.95E-04	SNRPB, SNRPD1, SNRPD2, DDX20, SNRPE
GOTERM_CC_DIRECT	GO:0002199~zona pellucida receptor complex	4	0.003763	0.001515	CCT7, TCP1, CCT2, CCT3
GOTERM_CC_DIRECT	GO:0005832~chaperonin-containing T-complex	4	0.003763	0.001515	CCT7, TCP1, CCT2, CCT3
GOTERM_CC_DIRECT	GO:0005685~U1 snRNP	5	0.004703	0.001552	SNRPB, SNRPD1, SNRPA, SNRPD2, SNRPE
GOTERM_CC_DIRECT	GO:0005762~mitochondrial large ribosomal subunit	7	0.006585	0.001893	MRPL11, MRPL4, MRPL21, MRPL54, MRPL37, MRPL9, NSUN3
GOTERM_CC_DIRECT	GO:0005687~U4 snRNP	4	0.003763	0.002858	SNRPB, SNRPD1, SNRPD2, SNRPE
GOTERM_CC_DIRECT	GO:0046540~U4/U6 x U5 tri-snRNP complex	5	0.004703	0.003252	SNRPB, SNU13, SNRPD2, SNRPE, TXNL4A
GOTERM_CC_DIRECT	GO:0071011~precatalytic spliceosome	5	0.004703	0.004449	SNRPD1, SNU13, SNRPD2, SNRPE, SF3B2

GOTERM_CC_DIRECT	GO:0005689~U12-type spliceosomal complex	5	0.004703	0.005146	SNRPB, SNRPD1, SNRPD2, SNRPE, SF3B2
GOTERM_CC_DIRECT	GO:0000784~nuclear chromosome, telomeric region	10	0.009407	0.009561	NABP2, MCM7, GAR1, DDB1, ALYREF, MCM2, TEN1, APEX1, NHP2, RAD51
GOTERM_CC_DIRECT	GO:0031428~box C/D snoRNP complex	3	0.002822	0.010433	SNU13, NOP58, FBL
GOTERM_CC_DIRECT	GO:0034715~pICln-Sm protein complex	3	0.002822	0.010433	SNRPD1, SNRPD2, SNRPE
GOTERM_CC_DIRECT	GO:0005684~U2-type spliceosomal complex	3	0.002822	0.014342	HTATSF1, SF3A1, SF3B2
GOTERM_CC_DIRECT	GO:0032040~small-subunit processome	5	0.004703	0.014861	SNU13, NOP58, IMP4, FBL, RPS7
GOTERM_CC_DIRECT	GO:0016363~nuclear matrix	8	0.007526	0.01717	NONO, YEATS4, HNRNPM, RNASEL, MORC3, SRRM1, CENPW, AKAP8
GOTERM_CC_DIRECT	GO:0005697~telomerase holoenzyme complex	4	0.003763	0.018808	GAR1, SNRPB, NHP2, SNRPE
GOTERM_CC_DIRECT	GO:0042470~melanosome	8	0.007526	0.020969	HSP90AB1, HSP90AA1, PPIB, RAN, SND1, FASN, SEC22B, PDCC6IP
GOTERM_CC_DIRECT	GO:0035145~exon-exon junction complex	4	0.003763	0.021344	R3HCC1, EIF4A3, ALYREF, RNPS1
GOTERM_CC_DIRECT	GO:0044297~cell body	6	0.005644	0.028921	CCT7, TCP1, CCT2, CCT3, NAXE, RPL28
GOTERM_CC_DIRECT	GO:0036464~cytoplasmic ribonucleoprotein granule	4	0.003763	0.030018	RPL6, RPLP0, NCL, RPL28
GOTERM_CC_DIRECT	GO:0000794~condensed nuclear chromosome	4	0.003763	0.040272	SUV39H1, H2AFX, BRD4, RAD51
GOTERM_CC_DIRECT	GO:0030687~preribosome, large subunit precursor	4	0.003763	0.044035	CCDC86, RPLP0, RPLP2, MRTO4
GOTERM_CC_DIRECT	GO:0005643~nuclear pore	6	0.005644	0.047303	NXT1, RGPD8, RAN, EIF5A, POM121C, KPNA2
GOTERM_CC_DIRECT	GO:0005732~small nucleolar ribonucleoprotein complex	3	0.002822	0.047809	SNRPB, NOP58, NHP2
GOTERM_MF_DIRECT	GO:0044822~poly(A) RNA binding	148	0.139222	4.29E-58	RPL19, RPL14, RBM15B, RBM3, RPL15, SNRPD1, EIF5A, SNRPD2, CCT3, NONO, DDX27, DDX28, SND1, RPLP0, RAVR1, LRRC59, SRRM1, LSM4, MRPL37, RPL10, RPL12, GNL2, MTO1, GTPBP4, ACTN4, RPUSD2, RAN, EEF2, YTHDF2, YTHDF1, ISG20L2, MRM3, MRTO4, RPS18, PA2G4, RPS19, RPS16, RCC2, RPS17, ABT1, NME1, SNRPB, RPS12, SNRPA, DNTTIP2, AKAP8, SUPT6H, MRPS15, MRPS11, PABPC4, PRRC2A, ZFC3H1, HNRNPL, HNRNPM, RPS28, PELP1, RPL6, HTATSF1, NPM1, RPL8, MRPL54, RPL3, NPM3, RPL4, RPL10A, RPL7A, RPS21, RPS23, HNRNPAB, RPSA, CCDC86, RARS2, MCAT, RPL23A, RNPS1, HNRNPA1, RPS5, HNRNPA0, RPS8, RPS7, SRSF4, NOLC1, PPIB, PPIA, PPRC1, RPL37A, DDX54, PUF60, ABCF1, HSP90AB1, GAR1, TRMT10C, RPS2, RPS3, PRMT1, MAZ, GRWD1, ZCCHC6, RCC1L, MRPL4, HSP90AA1, ZC3H7A, SLC25A5, MRPL9, UBE2I, NCL, EIF4A3, TXN, KHSRP, PEBP1, NHP2, KPNA2, TUFM, SNU13, RPL27A, RPL35, RPL36, NUFIP2, SF3B2, MRPL11, RACK1, RPL30, ATXN2L, RPL32, REXO4, RPL31, FASN, APEX1, DUS3L, HSPA9, SSRP1, TCP1, ALYREF, TRIM28, ILF3, RPL24, SF3A2, SF3A1, RPL28, FBL, RPL29, MRPL21, ILF2, UBTF, CSNK1E, RPL13A, HNRNPUL1, NOP58

GOTERM_MF_DIRECT	GO:0003735~structural constituent of ribosome	58	0.05456	5.35E-38	RPL18, RPL19, RPL14, RPL15, RPLP2, RPL22L1, RPS2, RPS3, RPLP0, RPL26L1, SLC25A3, MRPL37, RPL10, RPL12, MRPL4, SLC25A5, SLC25A6, MRPL9, MRPS2, MRTO4, RPS18, RPS19, RPS16, RPS17, RPS12, MRPS15, MRPS11, RPL35, RPL27A, RPL36, RPL37, MRPL11, RPL30, RPS28, RPS29, RPL32, RPL31, RPL6, RPL9, RPL8, RPL3, RPL7A, RPL10A, RPL4, RPS21, RPS23, RPSA, RPL23A, RPL24, RPS5, RPS8, RPL28, RPS7, RPL29, MRPL21, RPL13A, SLC25A10, RPL37A
GOTERM_MF_DIRECT	GO:0003723~RNA binding	71	0.066789	2.59E-26	RPL18, RNASEL, RPL19, RPL14, RBM3, RBM15B, UNC50, RPL15, SNRPD1, EIF5A, QARS, TIMM50, PRKCSH, RPS2, RPS3, IMPDH2, MRPL4, EXOSC5, YTHDF2, RBBP7, RNASEH2A, NCL, MRM3, RPS18, RPS16, ABT1, PABPN1L, KHSRP, SNRPB, SNRPA, SNRPE, NHP2, PABPC4, SETD1A, RPL27A, SNU13, RPL37, NUFIP2, HNRNPL, HNRNPM, RPL30, RPS28, MORC3, RPL31, RPL6, RPL9, HTATSF1, RPL8, NPM1, RPL3, RPL7A, RPL10A, RPL4, NSUN3, HNRNPAB, ILF3, RNPS1, RPL24, SF3A1, RPS5, HNRNPA1, FBL, HNRNPA0, RPL28, RPS7, RPL29, MRPL21, ILF2, HNRNPUL1, DDX54, SCAND1
GOTERM_MF_DIRECT	GO:0005515~protein binding	335	0.315131	9.61E-14	RPL19, RPL14, THOP1, RPL15, USE1, TRAPPC2L, RPLP2, GFER, CCT2, MED23, CCT3, AURKB, ITSN2, CIAPIN1, NONO, BRPF1, PPP1R1B, RPLP0, CD46, MED26, MED27, H2AFZ, LSM4, RPL10, H2AFX, RPL12, GTPBP4, RAN, ANAPC4, MATN1, ISG20L2, MRM3, RFC5, RPS18, RPS19, CEP162, RPS16, RCC2, ABT1, NME1, CNTROB, CHORDC1, SUPT6H, CCDC93, TXN2, CCDC94, PABPC4, FAM122A, PRRC2A, TEN1, RIC1, TK1, RPS28, STX16, GCSH, NAXE, TCF3, RPS23, HNRNPAB, RPSA, YEATS4, CCDC86, NPB, KANSL2, PHB, TGFBR2, TNNI3, RPS5, HNRNPA1, RPS7, CCT7, SRSF4, NOLC1, RNF4, WDR62, CSRNPI, UBA3, NUTF2, TRAFD1, CHAF1A, ABCF1, GAR1, COPS3, QARS, TRMT10C, CDT1, LONP1, BAG1, HSF2, FANCG, BRD4, ZPR1, USP15, TUBB3, PGAP2, NDUFB11, MRPL4, SLC25A5, SLC25A6, EXOSC5, MRPL9, ZNF687, MBD3, ECSIT, RBBP7, BBS10, RAD51, ATP6V1C1, INHBB, PFDN2, EIF4A3, MED7, ZDHHC17, BNIP1, TXN, TOMM22, NCAPH2, USP22, LTV1, NHP2, CLN6, TUFM, NXT1, UNG, SNU13, RPL27A, NUFIP2, MIF, SF3B2, MRPL11, PRPF19, RPL30, WDR18, ATXN2L, TOE1, RPL31, LANCL2, TEK1, FASN, GATAD2A, SNAP23, PEX10, EXOC1, ZNF263, CCNB1IP1, SSRP1, BRD2, SHMT2, TRIM28, AP5S1, RPL24, ILF3, NID2, SF3A2, SF3A1, RPL28, SGTA, DOT1L, ORM1, PYGM, UBTF, ILF2, CSNK1E, HNRNPUL1, CFAP206, YWHAQ, NOP58, TRMT112, TXNL4A, RNASEL, TNNC2, STK38, RBM15B, RBM3, CRABP2, SNRPD1, PKMYT1, EIF5A, SNRPD2, IL13, TSSC4, CSPG5, DDX27, EIF4EBP1, SND1, SRRM1, HIRIP3, DDX20, RNF34, IMP4, DCTPP1, MATK, SPTLC1, RBL2, ACTN4, EEF2, YTHDF2, STK4, MRTO4, PA2G4, NABP2, CLPP, SNRPB, SNRPA, PAF1, PDCD6IP, AKAP8, SNRPE, PRPS1, SMARCA4, FGFR4, EID3, SRM, STAM2, SETD1A, SNX1, KEAP1, RIOK1, PYDC1, ZFC3H1, IRAK4, HNRNPL, ZNF699, HNRNPM, PELP1, POLE3, SMARCB1, METTL1, RPL9, EIF3F, PSMB2, NPM1, RPL3, NPM3, EIF3I, RPL10A, SCARB2, RPL7A, RPL4, PTPN7, REEP6, GINS2, SUV39H1, TOMM40, RPL23A, RNPS1, C8ORF33, QRIC1, HSPBP1, ATF4, POC1A, PPIB, PPIA, PSMC3, SLC25A10, LAGE3, POLD2, RHOT1, RPL37A, PUF60, FABP5, E2F1, HSP90AB1, NDUFAF7, BORA, TIMM50, RPS2, PTMA, RPS3, PRMT1, CDC45, MCM7, MAZ, ZFYVE16, ALS2CR12, CDK16, KIRREL2, TUBA1B, IMPDH2, TUBA1C, HSP90AA1, DDB1, ELP5, UBE2I, MCM2, IRF2BP1, CDK4, NCL, RECQL, PPM1G, CD80, C1QBP, CD81, UBE2M, KHSRP, PEBP1, EMC2, INPP4A, KPNA2, AOC3, CUEDC2, ING5, CKS1B, ING2, ECHS1, VARS, ESYT1, PLPP2, APLP1, SCARF2, RACK1, FCN3, MYL6B, PAFAH1B3, SEC22B, TUBA3E, POM121C, APEX1, HSPA9, TCP1, CENPL, CENPS, ALYREF, TMED9, GSG2, FBL, PSMG1, TDP2, HBZ, VSTM2L, CKS2, CENPW, SH3D19, SCAND1, TSSK6
GOTERM_MF_DIRECT	GO:0000166~nucleotide binding	31	0.029161	1.09E-07	RBM15B, HINT1, RBM3, PABPC4, SETD1A, NONO, HNRNPL, HNRNPM, TYMS, RAVER1, HTATSF1, ZRSR1, NAXE, IMPDH2, HNRNPAB, R3HCC1, HSP90AA1, ALYREF, RNPS1, RPL23A, NCL, HNRNPA1, HNRNPA0, RAD51, SRSF4, PYGM, ABT1, PABPN1L, PPRC1, SNRPA, PUF60
GOTERM_MF_DIRECT	GO:0019843~rRNA binding	11	0.010348	1.47E-07	MRPL11, RNASEL, RPS18, MRPS15, DDX28, RPL9, RPL8, RPL37, RPL23A, RPL12, RPS5
GOTERM_MF_DIRECT	GO:0051082~unfolded protein binding	13	0.012229	8.18E-05	CCT7, HSP90AB1, PFDN2, TCP1, HSP90AA1, PPIB, PPIA, NPM1, CCT2, PDRG1, CCT3, CHAF1A, HSPA9

GOTERM_MF_DIRECT	GO:0098641~cadherin binding involved in cell-cell adhesion	22	0.020695	1.16E-04	HSP90AB1, STK38, RPL14, RAN, RPL15, SNX1, RPL24, RPL23A, EEF2, RPS2, RPL29, TNKS1BP1, RACK1, ATXN2L, RPL6, ATIC, SND1, LRRC59, FASN, RANBP1, RPL7A, PUF60
GOTERM_MF_DIRECT	GO:0070180~large ribosomal subunit rRNA binding	4	0.003763	7.75E-04	RPL19, RPLP0, RPLP2, MRTO4
GOTERM_MF_DIRECT	GO:0008320~protein transmembrane transporter activity	4	0.003763	0.001214	RAN, TOMM40, NUTF2, TOMM22
GOTERM_MF_DIRECT	GO:0005524~ATP binding	64	0.060204	0.001603	ABCF1, HSP90AB1, DYNC1LI2, RNASEL, STK38, DTYMK, PKMYT1, QARS, CCT2, AURKB, CCT3, TTLL1, DDX27, ATAD3A, LONP1, MCM7, DDX28, DDX20, CDK16, KIAA0232, MATK, HSP90AA1, PHKG1, LIG1, UBE2I, MCM2, CDK4, BBS10, STK4, RAD51, RFC5, RECQL, EIF4A3, NME1, UBE2M, PEBP1, CHORDC1, UBE2S, SMARCA4, PRPS1, FGFR4, RIOK1, VARS, TK1, IRAK4, LANCL2, SRR, HSPA9, TCP1, RARS2, TGFBR2, MMAB, GSG2, CCT7, PLK5, ILF2, NOLC1, CSNK1E, PSMC3, UBA3, GRK7, DDX54, GRK3, TSSK6
GOTERM_MF_DIRECT	GO:0003713~transcription coactivator activity	17	0.015992	0.002435	RAN, MED23, CITED4, MED7, RNF4, ABT1, SMARCB1, PSMC3, HSF2, MED26, MED27, NPM1, USP22, APEX1, TCF3, SCAND1, SMARCA4
GOTERM_MF_DIRECT	GO:0003676~nucleic acid binding	44	0.04139	0.004833	ZNF19, RBM3, RBM15B, SETD1A, PABPC4, ZNF75D, HNRNPL, DDX27, NONO, MAZ, TOE1, REXO4, HTATSF1, SND1, RAVR1, NPM1, DDX20, POM121C, ZNF574, ZCCHC6, ZNF470, HNRNPAB, ZNF267, ZNF263, R3HCC1, TTC14, ZNF282, DDB1, ALYREF, RNPS1, ZNF668, SF3A2, HNRNPA1, NCL, ZNF628, EIF4A3, RECQL, SRSF4, NABP2, PABPN1L, PPRC1, GPATCH3, DDX54, PUF60
GOTERM_MF_DIRECT	GO:0003697~single-stranded DNA binding	9	0.008466	0.005549	CDC45, LONP1, NABP2, MCM7, NME1, TDP2, TEN1, HNRNPA1, RAD51
GOTERM_MF_DIRECT	GO:0019899~enzyme binding	19	0.017873	0.008598	NDUFAF7, PHKG1, UNG, PHB, HACD4, UBE2I, MCM2, RPS2, RPS3, TNKS1BP1, RACK1, RFC5, PRMT1, NABP2, HNRNPUL1, PEBP1, H2AFX, USP22, SCARB2
GOTERM_MF_DIRECT	GO:0003684~damaged DNA binding	7	0.006585	0.009657	POLK, UNG, DDB1, H2AFX, FANCG, APEX1, RPS3
GOTERM_MF_DIRECT	GO:0003729~mRNA binding	10	0.009407	0.010554	EIF4A3, TYMS, HSP90AA1, C1QBP, RPL13A, RPL35, RPS2, RPS5, RPS3, HNRNPAB
GOTERM_MF_DIRECT	GO:1990446~U1 snRNP binding	3	0.002822	0.015966	SNRPD1, SNRPA, SNRPD2
GOTERM_MF_DIRECT	GO:0008168~methyltransferase activity	8	0.007526	0.019327	SHMT2, PRMT1, NDUFAF7, GAMT, NSUN3, CIAPIN1, FBL, MRM3
GOTERM_MF_DIRECT	GO:0001164~RNA polymerase I CORE element sequence-specific DNA binding	3	0.002822	0.020884	UBTF, SMARCB1, SMARCA4
GOTERM_MF_DIRECT	GO:0008429~phosphatidylethanolamine binding	3	0.002822	0.020884	PEMT, PEBP1, MFGE8
GOTERM_MF_DIRECT	GO:0030515~snoRNA binding	4	0.003763	0.0218	SNU13, NOP58, NHP2, IMP4
GOTERM_MF_DIRECT	GO:0030957~Tat protein binding	3	0.002822	0.026342	SMARCB1, NPM1, SMARCA4
GOTERM_MF_DIRECT	GO:0003682~chromatin binding	19	0.017873	0.03673	ING5, SSRP1, BRD2, SHMT2, ING2, CENPS, RAN, TRIM28, SUV39H1, MBD3, RAD51, NONO, CDC45, UBTF, PELP1, CKS2, BRD4, PAF1, CHAF1A
GOTERM_MF_DIRECT	GO:0070182~DNA polymerase binding	3	0.002822	0.038739	LONP1, RAD51, SMARCA4
GOTERM_MF_DIRECT	GO:0042054~histone methyltransferase activity	3	0.002822	0.038739	DOT1L, PRMT1, SUV39H1
GOTERM_MF_DIRECT	GO:0002039~p53 binding	6	0.005644	0.044566	SMARCB1, EEF2, BRD4, RNF34, BCL2L12, SMARCA4
GOTERM_MF_DIRECT	GO:0015266~protein channel activity	3	0.002822	0.045613	TOMM40, TOMM22, TIMM22

GO, Gene Ontology; *IDH2*, isocitrate dehydrogenase 2.

Table SV. KEGG enrichment results of *IDH2* co-expression genes.

Category	Term	Count	(%)	P-value	Genes
KEGG_PATHWAY	hsa03010:Ribosome	52	0.048916	4.30E-40	RPL18, RPL19, RPL14, RPL15, RPLP2, RPL22L1, RPS2, RPS3, RPLP0, RPL26L1, RPL10, RPL12, MRPL4, MRPL9, MRPS2, RPS18, RPS19, RPS16, RPS17, RPS12, MRPS15, MRPS11, RPL35, RPL27A, RPL36, RPL37, MRPL11, RPL30, RPS28, RPL32, RPS29, RPL31, RPL6, RPL9, RPL8, RPL3, RPL7A, RPL10A, RPL4, RPS21, RPS23, RPSA, RPL23A, RPL24, RPS5, RPS8, RPL28, RPS7, RPL29, MRPL21, RPL13A, RPL37A
KEGG_PATHWAY	hsa03040:Spliceosome	18	0.016932	4.17E-06	ALYREF, SNU13, SNRPD1, SNRPD2, SF3A2, HNRNPA1, SF3A1, SF3B2, PRPF19, HNRNPM, EIF4A3, SRSF4, SNRPB, SNRPA, LSM4, SNRPE, PUF60, TXNL4A
KEGG_PATHWAY	hsa03008:Ribosome biogenesis in eukaryotes	12	0.011288	2.38E-04	NXT1, GTPBP4, GAR1, RAN, NOB1, SNU13, NOP58, RIOK1, GNL2, NHP2, IMP4, FBL
KEGG_PATHWAY	hsa03030:DNA replication	7	0.006585	0.001519	RFC5, MCM7, POLE3, LIG1, POLD2, MCM2, RNASEH2A
KEGG_PATHWAY	hsa03013:RNA transport	14	0.01317	0.008172	NXT1, RGPB8, RAN, ALYREF, PABPC4, UBE2I, RNPS1, EIF4A3, EIF4EBP1, EIF3F, SRRM1, EIF3I, POM121C, DDX20
KEGG_PATHWAY	hsa03410:Base excision repair	5	0.004703	0.028527	POLE3, LIG1, UNG, POLD2, APEX1
KEGG_PATHWAY	hsa04130:SNARE interactions in vesicular transport	5	0.004703	0.031456	BNIP1, STX16, USE1, SEC22B, SNAP23
KEGG_PATHWAY	hsa00260:Glycine, serine and threonine metabolism	5	0.004703	0.048668	SHMT2, SRR, GCSH, GAMT, AOC3

KEGG, Kyoto Encyclopedia of Genes and Genomes; *IDH2*, isocitrate dehydrogenase 2.

Table SVI. Prognostic values of *IDH2* co-expression genes in patients with AML.

ID	P-value	HR	Low (95% CI)	High (95% CI)
SF3A1	1.83E-05	2.627916	1.689104	4.088522
CENPV	0.000281	0.441327	0.283845	0.686183
ISG20L2	0.000326	2.244495	1.444182	3.488314
PHB	0.001674	1.995164	1.296864	3.069467
GCSH	0.002463	0.505076	0.324592	0.785914
HSF2	0.002593	0.511869	0.33107	0.791403
ZNF19	0.002643	0.514259	0.333348	0.793351
TSSC1	0.002889	1.92709	1.251632	2.967068
ECHS1	0.002965	1.928514	1.250496	2.974155
NABP2	0.003346	1.908019	1.239218	2.937768
NAXE	0.003926	1.885388	1.225292	2.901093
KEAP1	0.00399	1.88101	1.223461	2.891957
THAP4	0.005587	1.839936	1.195396	2.832003
PRPF19	0.006311	1.820436	1.184315	2.798231
PSMB2	0.00645	1.820204	1.182927	2.8008
TUBA1C	0.008748	1.784495	1.157408	2.751339
PUF60	0.009178	1.772476	1.152332	2.72636
NPM1	0.009672	0.565095	0.366731	0.870753
SF3B2	0.012457	1.736788	1.126441	2.677844
SRRM1	0.01602	1.697598	1.103568	2.611383
KANSL2	0.016177	0.585494	0.378491	0.90571
OR51J1	0.016518	0.59083	0.38425	0.90847
MCM2	0.017644	1.683709	1.094924	2.589107
SRM	0.018781	1.673355	1.089175	2.570862
HIRIP3	0.018854	1.675984	1.089169	2.578958
TEKT1	0.01936	0.59675	0.387151	0.919824
THOP1	0.020129	1.666427	1.083267	2.563524
LRRC42	0.021333	1.652613	1.077506	2.534679
ZDHHC11	0.022177	1.648582	1.074169	2.530164
STAM2	0.023022	0.608446	0.39643	0.93385
MRPL4	0.025649	1.62985	1.06124	2.50312
ZFYVE16	0.026601	0.616271	0.401739	0.945365
PAFAH1B3	0.029036	1.614734	1.050175	2.482791
ACTN4	0.030777	1.604526	1.04475	2.464229
EIF4EBP1	0.032627	1.594858	1.039353	2.447267
MYL6B	0.033397	1.591913	1.037244	2.443193
MRPS11	0.033617	1.591058	1.03665	2.441968
WDR18	0.033926	1.590165	1.035834	2.441147
MED27	0.035182	1.584039	1.032464	2.430284
SSRP1	0.035455	1.582438	1.031736	2.427083
CCT2	0.035876	0.628704	0.407552	0.969861

RNASEH2A	0.037011	1.582238	1.028034	2.435208
RARS2	0.038362	0.634464	0.412482	0.975908
C6orf132	0.040872	1.566059	1.01879	2.407309
FASN	0.041231	1.562796	1.017927	2.399319
LSM4	0.042099	1.563467	1.016085	2.405732
DDX28	0.04304	1.555743	1.013935	2.387071
ZDHHC17	0.044496	0.644231	0.419546	0.989244
CCT3	0.044869	1.550428	1.01009	2.379814
PLPP2	0.045129	0.644948	0.419937	0.990524
HNRNPAB	0.04525	1.549175	1.009302	2.377824
HINT1	0.046954	0.645084	0.418597	0.994115
STK38	0.047506	0.648381	0.422406	0.995246
CEP162	0.049192	0.650467	0.423752	0.998479
MRPL37	0.04971	1.534798	1.000543	2.354328
PHKG1	0.049992	0.651284	0.424178	0.999985
GCGR	0.050436	0.65145	0.424042	1.000814
CIAPIN1	0.055559	1.518515	0.990125	2.328886
PTPN7	0.056314	1.515088	0.98888	2.321306
ZRSR1	0.058033	0.660869	0.430634	1.014198
H2AFZ	0.058206	1.512667	0.985721	2.321308
TRMT112	0.059981	1.50932	0.982852	2.317793
PPM1G	0.060971	1.504668	0.981366	2.307016
BNIP1	0.062015	0.662959	0.43053	1.020869
SNRPB	0.062614	1.503184	0.978767	2.30858
LMNB2	0.065029	1.495163	0.975262	2.292218
MRPL9	0.066629	1.491986	0.972932	2.287952
UBA3	0.067415	1.494472	0.971617	2.298689
TTC14	0.067643	0.666868	0.431829	1.029834
IFT52	0.068676	0.670996	0.436687	1.031027
EIF4A3	0.068698	1.486905	0.970045	2.279158
TNNC2	0.072829	1.48416	0.964108	2.284734
RPL31	0.072903	0.674421	0.438508	1.037253
RACK1	0.073436	0.671902	0.434736	1.038451
RPL6	0.073705	0.675015	0.43879	1.038412
RPS18	0.075114	0.674806	0.437585	1.040627
RPSA	0.076547	0.677485	0.440316	1.0424
RPUSD2	0.082294	1.465731	0.952231	2.256143
CLPP	0.083226	1.459549	0.951513	2.238839
PRPS1	0.084864	1.454459	0.949813	2.227227
LOXL1	0.086751	1.454303	0.947387	2.232456
TEN1-CDK3	0.087555	0.686792	0.446301	1.056875
KIDINS220	0.089339	1.456411	0.943861	2.247293
TIMM50	0.089896	1.447503	0.944051	2.219438
AL049697.1	0.089925	0.691066	0.450858	1.059253

RPL3	0.090473	0.687696	0.445802	1.060842
IGFBP6	0.091878	0.691596	0.450438	1.061867
NHP2	0.095924	1.437544	0.937714	2.203798
PREPL	0.096381	0.695626	0.453489	1.067052
RAD51	0.098418	1.435306	0.93499	2.203342
PFDN2	0.101967	1.427369	0.931815	2.186466
STK4	0.107104	1.423881	0.926394	2.188525
RPL29	0.109704	0.702761	0.456137	1.082731
PGAM5	0.110923	1.416382	0.923204	2.173017
EXOSC5	0.111664	1.41475	0.922632	2.169356
RPS23	0.11601	0.708832	0.461498	1.08872
SRSF4	0.117018	1.410445	0.917475	2.168292
WDR5B	0.118148	0.708706	0.460156	1.091508
TUBA1B	0.118236	1.404771	0.917106	2.151747
CSNK1E	0.119025	0.707956	0.458586	1.092929
ATAD3A	0.11915	1.405874	0.91595	2.157849
SNU13	0.120366	1.402635	0.915212	2.149651
CKS2	0.12566	1.398564	0.910407	2.148469
MRT04	0.127374	1.393332	0.909612	2.134289
TXN2	0.128469	1.391454	0.908852	2.130318
ZNF628	0.129882	1.3908	0.907548	2.131374
AP5S1	0.131966	1.389621	0.905679	2.132151
NSUN3	0.13278	0.720062	0.469249	1.104934
NCAPH2	0.136148	1.382868	0.902885	2.118016
EIF3I	0.1365	1.384488	0.902204	2.124582
MIDN	0.137725	1.383187	0.90127	2.122789
ZNF263	0.137784	0.722263	0.469982	1.109964
RPS2	0.137824	0.721406	0.468669	1.110435
ECSIT	0.139581	1.380762	0.899968	2.118411
PDRG1	0.140668	1.379032	0.899283	2.114716
VAR5	0.143704	1.376418	0.896929	2.112237
PHACTR1	0.145745	1.373999	0.895522	2.108126
GNL2	0.146258	1.372281	0.895425	2.103085
DCTPP1	0.146687	1.372448	0.89498	2.104641
RPL37A	0.152022	0.731634	0.4771	1.121962
RPL13A	0.155389	0.731324	0.474948	1.126092
ABCF1	0.155671	1.363187	0.888804	2.090762
HNRNPUL1	0.15618	1.362878	0.888413	2.090737
ADM5	0.156354	0.730216	0.472758	1.127882
C15orf61	0.156625	0.731695	0.474908	1.127328
ILF3	0.156987	0.732469	0.475928	1.127295
FBL	0.162682	0.737285	0.480631	1.13099
NOB1	0.16603	0.736743	0.478146	1.135199
PABPN1L	0.168695	0.740425	0.482643	1.135889

ATP6V1C1	0.169932	0.741738	0.484122	1.13644
MRM3	0.170576	1.349284	0.879066	2.071024
HPDL	0.172764	1.34566	0.878173	2.06201
CENPW	0.174801	1.34385	0.876921	2.0594
CHRNBI	0.175146	0.742457	0.482746	1.141888
NAPEPLD	0.178163	0.745073	0.48547	1.143498
TIMM22	0.179626	1.338891	0.874226	2.050533
R3HCC1	0.180894	1.338117	0.873375	2.050157
ZFC3H1	0.181079	0.745652	0.485001	1.146381
RPL14	0.18379	0.746576	0.485191	1.148776
PSMC3	0.183917	1.335023	0.871753	2.044486
RPL26L1	0.185612	1.333535	0.870783	2.042203
CCT7	0.187868	1.331655	0.869479	2.039503
ZNF428	0.189925	0.748089	0.484711	1.154579
OGFOD3	0.190223	0.750238	0.488052	1.153273
CRABP2	0.191561	1.332475	0.866114	2.049951
GRK7	0.192608	1.328392	0.866575	2.036322
CHAF1A	0.197664	1.324568	0.863667	2.031431
ING5	0.199073	0.754386	0.490654	1.159878
TXN	0.199633	1.321648	0.863051	2.023929
C17orf53	0.199691	0.755964	0.49296	1.159285
TOE1	0.203615	1.318704	0.860833	2.020112
MFGE8	0.203631	0.756171	0.491456	1.16347
RNASEL	0.203938	1.319733	0.860206	2.024742
RBBP7	0.205686	1.316697	0.85987	2.016224
NUTF2	0.208697	1.314727	0.858155	2.014215
RANBP1	0.209361	1.313665	0.85801	2.011301
ZNF668	0.209486	1.314033	0.857774	2.012981
SUV39H1	0.209589	1.313887	0.857745	2.012602
HNRNPA1	0.211906	0.761419	0.496326	1.168102
RPL15	0.215342	0.762332	0.496261	1.171057
DDX54	0.215635	1.310181	0.854297	2.009341
ALKBH7	0.215686	0.759791	0.491841	1.173717
MED7	0.21932	0.76473	0.49846	1.173236
SH3D19	0.226364	0.768819	0.502167	1.177065
GID8	0.227862	0.767618	0.499421	1.179838
RNF4	0.228068	0.768616	0.501034	1.179104
LAGE3	0.228299	1.301222	0.847847	1.997035
TTLL1	0.229214	1.299095	0.848006	1.990137
RPL7A	0.229466	0.766865	0.497395	1.182323
RPL30	0.232004	0.770331	0.502165	1.181705
YTHDF1	0.232785	1.296604	0.846274	1.986569
EIF3F	0.244602	0.77445	0.503509	1.191184
RPL18	0.247458	0.775377	0.503819	1.193306

UBTF	0.247851	1.28705	0.838905	1.974595
EID3	0.25144	0.779096	0.508536	1.193604
C1orf228	0.252955	0.77774	0.505447	1.196723
CNTROB	0.255526	0.778981	0.506461	1.198141
RPL9	0.257553	0.781609	0.510201	1.197396
QRICH1	0.260105	0.780075	0.5063	1.20189
LANCL2	0.2611	1.280081	0.832165	1.969091
SLC25A5	0.265376	1.274516	0.831695	1.95311
FCN3	0.273632	1.273998	0.825809	1.965433
SUPT6H	0.275698	1.268037	0.827357	1.94344
TOMM40	0.276065	1.267912	0.827152	1.943538
TEN1	0.276748	0.789291	0.515297	1.208973
SF3A2	0.276771	1.268214	0.826475	1.946056
ZNF470	0.279331	1.266302	0.825597	1.942257
FABP5	0.280362	1.265271	0.825388	1.939587
PRRC2A	0.283902	1.262786	0.82413	1.934924
CENPM	0.284376	1.262404	0.823991	1.93408
SMARCB1	0.285388	1.261947	0.823502	1.933827
KBTBD4	0.287674	1.259824	0.822999	1.928504
RAVER1	0.288144	0.792338	0.515681	1.217418
LZTS3	0.289239	1.259884	0.821828	1.931436
FGFR4	0.292041	1.257223	0.821277	1.924578
MTO1	0.292431	0.794754	0.518204	1.218893
UNG	0.296033	1.255069	0.819608	1.921892
CHRM4	0.300756	1.25253	0.817664	1.918673
RPL32	0.301403	0.79831	0.520755	1.223797
CDK4	0.301486	1.251956	0.817473	1.917365
TK1	0.302174	1.251694	0.817131	1.917365
RPL19	0.305292	0.798783	0.519858	1.227363
TBC1D3E	0.311835	0.801766	0.522517	1.230254
FAM122A	0.311889	1.247569	0.812604	1.915359
EIF5A	0.317055	1.243327	0.81152	1.904898
MMAB	0.321789	1.240979	0.809619	1.902166
NUFIP2	0.322357	0.805925	0.525666	1.235603
POC1A	0.322587	1.240618	0.80928	1.901856
SSR2	0.324821	0.806948	0.526515	1.236746
SETD1A	0.32772	1.237035	0.80794	1.894021
UBE2M	0.329156	1.236888	0.807014	1.895742
NOP58	0.329401	0.808834	0.528077	1.238857
AURKB	0.329462	0.80826	0.526922	1.239812
CUEDC2	0.331625	1.237836	0.804624	1.904291
PTMA	0.331647	0.80897	0.527297	1.241107
TSSC4	0.332084	1.234926	0.806229	1.891575
AL512506.3	0.333855	1.236397	0.803984	1.90138

PPP1R1B	0.335289	0.810887	0.529383	1.242085
RPLP0	0.335943	0.809301	0.52594	1.245328
GSG2	0.337514	1.232272	0.804158	1.888302
SLC35E1	0.338042	0.811964	0.530234	1.243387
ATIC	0.342052	1.229835	0.802611	1.884468
ATXN7L2	0.347716	1.226951	0.800617	1.880312
RIC1	0.349019	0.815735	0.532639	1.249296
AC025594.3	0.35314	1.224051	0.798854	1.875562
RHOT1	0.356826	0.818307	0.534171	1.253579
RPL35	0.359306	0.819021	0.534456	1.2551
SNRPE	0.359583	1.220468	0.796927	1.869106
ZPR1	0.361185	0.819432	0.534406	1.256478
SCAND1	0.361746	1.219844	0.795862	1.869694
NID2	0.364574	0.82096	0.535936	1.257566
ELP6	0.364972	0.8201	0.533973	1.259547
RPS7	0.370956	0.822842	0.536787	1.261336
RPL8	0.373647	1.214415	0.791595	1.863079
RECQL	0.373873	1.213527	0.792132	1.859094
MATK	0.374642	0.822413	0.534122	1.26631
CD46	0.375782	0.824782	0.538523	1.263204
SNRPA	0.376392	1.212657	0.791036	1.859002
C12orf4	0.377102	0.825038	0.538427	1.264216
POLE3	0.377786	1.212099	0.790492	1.858569
BRD2	0.378207	0.824964	0.537738	1.265608
C8orf33	0.378934	1.211235	0.79037	1.856207
SCRN3	0.383254	0.827114	0.539836	1.267269
ING2	0.386398	0.827223	0.53854	1.270652
CDK16	0.386878	1.207185	0.788042	1.849262
PSMG1	0.38797	1.206403	0.787916	1.84716
TGFBR2	0.39084	0.829937	0.542172	1.270437
NME1	0.391653	1.204688	0.786742	1.844662
CKS1B	0.397139	1.20228	0.784903	1.8416
INHBB	0.397366	0.831265	0.541839	1.27529
PA2G4	0.402041	1.199752	0.783616	1.836875
CHORDC1	0.402809	0.833504	0.544021	1.277026
CCDC82	0.405751	0.833694	0.54298	1.280056
KIAA0232	0.405814	1.200053	0.780665	1.844746
GAR1	0.410946	0.835959	0.545376	1.281368
MAZ	0.411801	0.835024	0.542887	1.284364
ZNF75D	0.411838	0.836499	0.546124	1.281265
RBL2	0.415698	0.837822	0.547134	1.28295
TUFM	0.416004	1.194847	0.778063	1.834888
HES4	0.416746	1.193444	0.778825	1.828792
RPL10A	0.421899	0.838615	0.545788	1.288548

GVQW1	0.424441	0.839742	0.547034	1.289074
HSP90AA1	0.424741	1.189337	0.776964	1.820576
H2AFX	0.425432	0.840316	0.547825	1.288973
UNC50	0.426363	0.840723	0.548271	1.28917
ZNF282	0.427398	0.841154	0.54872	1.289435
TMEM201	0.429659	1.187913	0.774807	1.821277
RFC5	0.436725	1.184399	0.773172	1.814348
ESYT1	0.43841	0.84344	0.5483	1.29745
NKPD1	0.440062	0.84556	0.552329	1.294465
APEX1	0.440469	0.845005	0.550839	1.296266
SMARCA4	0.442328	1.181927	0.771616	1.810424
BRD4	0.447838	1.179784	0.769827	1.808055
GFER	0.448084	1.179388	0.770058	1.8063
IGFALS	0.448837	0.847548	0.552409	1.300373
PELP1	0.451339	0.8482	0.552628	1.301856
ANAPC4	0.454121	0.849163	0.553438	1.302908
PRKCSH	0.457893	0.850042	0.553528	1.305392
CFAP206	0.460114	0.851721	0.55635	1.303907
PYGM	0.462022	0.851613	0.555082	1.306555
RPS3	0.464021	0.852318	0.555707	1.307246
RNPS1	0.466474	1.171369	0.765262	1.792989
IMPDH2	0.467105	0.853054	0.555831	1.309213
TLCD1	0.469479	1.170093	0.764482	1.790908
SLC25A10	0.470504	0.853555	0.555217	1.312201
IL31	0.4719	0.8551	0.558211	1.309891
CD81	0.479689	1.166674	0.76085	1.788957
DOT1L	0.481636	1.165449	0.76083	1.785247
PPP1R14B	0.483057	1.165383	0.759853	1.787341
HSPBP1	0.483742	1.165728	0.75894	1.790551
RPL24	0.485878	0.85946	0.561352	1.315877
MCM7	0.485994	0.8592	0.560644	1.316746
ZNF687	0.486872	1.163988	0.758659	1.785872
RPL22L1	0.488573	1.163064	0.758488	1.78344
ORM1	0.490341	1.161829	0.75865	1.779273
B3GNT4	0.490639	0.860521	0.561383	1.319058
LRRC69	0.495569	1.160764	0.756027	1.782178
TYMS	0.496225	0.862097	0.56225	1.321851
HSD11B1L	0.497687	1.159201	0.756353	1.776614
QPCTL	0.503055	1.157142	0.754875	1.773773
TUBB3	0.504544	0.865081	0.565196	1.324082
RCC1L	0.505332	1.155737	0.75493	1.76934
SEC22B	0.508064	1.156608	0.751748	1.779508
CDC45	0.508979	1.154302	0.754002	1.767122
PLEKHD1	0.513305	0.867121	0.565491	1.329637

RPL36	0.513848	0.86723	0.565464	1.330037
BRPF1	0.515461	1.152064	0.751981	1.765006
ABT1	0.515502	0.86722	0.564486	1.332311
RPL27A	0.515869	1.151924	0.751853	1.764877
ATF4	0.516295	0.86738	0.564446	1.332897
ZNF267	0.522329	1.149699	0.749858	1.762745
GATAD2A	0.523323	1.148875	0.750204	1.759407
RBM3	0.524213	1.149248	0.749012	1.763352
KANK3	0.526747	0.871468	0.569175	1.334312
PLIN4	0.527706	1.147329	0.748928	1.757666
PAF1	0.528212	1.146989	0.749004	1.756444
CCDC93	0.529253	0.872131	0.56948	1.335628
RPL10	0.529759	0.870861	0.565775	1.340462
APLP1	0.53152	1.145968	0.747851	1.756021
ALS2CR12	0.53204	0.872965	0.57008	1.336775
RBM15B	0.532762	0.872572	0.56859	1.33907
TDP2	0.533999	1.144861	0.747469	1.753528
MATN1	0.535603	0.873653	0.569824	1.339483
REEP6	0.53664	1.144267	0.746244	1.754582
ITSN2	0.539554	1.142724	0.746158	1.750056
TCF3	0.539821	0.874242	0.568898	1.343473
MIF	0.540303	1.142217	0.746299	1.748172
CDT1	0.540336	0.875	0.57066	1.341648
SNRPD1	0.543247	0.876036	0.571752	1.34226
C6orf120	0.544393	1.141242	0.744491	1.749428
C6orf48	0.545204	0.876456	0.571725	1.343611
BBS10	0.54677	0.876797	0.571715	1.344678
HBZ	0.548283	0.877647	0.573154	1.343904
RPLP2	0.548813	0.877281	0.571812	1.345937
GIN5	0.548865	1.139024	0.744212	1.743288
PGAP2	0.551544	1.138465	0.742915	1.744616
ALYREF	0.552853	0.878964	0.574037	1.345868
CCDC94	0.553617	1.137684	0.742433	1.743358
LIG1	0.555558	0.879167	0.572936	1.349078
METTL1	0.561927	0.881466	0.575486	1.350131
RPS19	0.562723	0.880917	0.573418	1.353314
TRAFD1	0.562981	1.134071	0.740445	1.736951
HACD4	0.563029	0.881691	0.575439	1.350932
SUMF2	0.568514	0.883323	0.576672	1.35304
MRPL21	0.568815	1.132383	0.738363	1.736666
SLC25A6	0.570045	1.131844	0.738216	1.735361
NCL	0.570445	0.884021	0.577468	1.353311
SNAP23	0.570637	1.131687	0.737983	1.735425
RGPD8	0.572867	0.884697	0.577891	1.35439

ELP5	0.574372	0.884305	0.575774	1.358162
PYDC1	0.578415	1.128578	0.736635	1.729063
COPS3	0.580714	0.88673	0.578802	1.358476
AKAP8	0.583885	0.887623	0.579388	1.35984
ECI1	0.587992	1.125645	0.733566	1.727283
RAN	0.593058	1.123166	0.733565	1.719686
NCBP2-AS2	0.593827	0.889318	0.577873	1.368616
FANCG	0.594512	1.122756	0.733051	1.719638
NDUFAF7	0.594512	0.890382	0.580653	1.365325
FEM1A	0.596142	0.891185	0.582012	1.364595
SRR	0.596451	0.89121	0.581878	1.364983
NPB	0.598516	0.890613	0.578645	1.370773
DDB1	0.599867	1.120894	0.731783	1.716908
CENPS	0.602014	0.892802	0.583016	1.367195
RPS21	0.60435	1.119959	0.72961	1.71915
CYP27B1	0.606507	0.894156	0.584153	1.368672
REXO4	0.612195	1.116587	0.729002	1.710236
PEBP1	0.613108	0.895713	0.584475	1.372687
VSX2	0.614421	0.896132	0.584885	1.373007
MED23	0.616298	0.896563	0.58494	1.374203
KHSRP	0.618749	0.897175	0.585162	1.375554
MCAT	0.620488	1.113697	0.727195	1.705625
MAFF	0.625116	1.112002	0.726378	1.702349
NOLC1	0.626587	1.1114	0.726249	1.700809
VSTM2L	0.626697	0.899561	0.587204	1.378073
AOC3	0.631388	0.900762	0.587739	1.380498
CSPG5	0.632651	1.109717	0.724145	1.700588
CD80	0.633795	1.10915	0.724257	1.698585
FOXI1	0.634486	0.901757	0.588767	1.381134
UTS2R	0.635119	0.901926	0.588863	1.381426
RPS17	0.63542	1.108625	0.723846	1.697943
TBX4	0.64069	1.107093	0.722173	1.697175
POLD2	0.641295	0.902904	0.587529	1.387568
TXNL4A	0.641633	0.903337	0.58874	1.38604
DOPEY1	0.642025	1.106438	0.72231	1.694845
EXOC1	0.644567	0.904303	0.589809	1.38649
PABPC4	0.645092	0.904722	0.590842	1.385346
FUT3	0.645262	0.903793	0.587533	1.390291
MRPS15	0.64926	0.905663	0.590895	1.388107
NONO	0.652292	0.906665	0.592033	1.388506
FAM71F2	0.654343	1.102188	0.719917	1.687443
AC010422.3	0.660143	0.90866	0.592902	1.39258
FBXO48	0.661286	0.909074	0.593468	1.392519
KIRREL2	0.66212	1.099816	0.717783	1.685182

NDUFB11	0.666224	0.910123	0.593272	1.396196
DYNC1LI2	0.675951	0.912633	0.594464	1.401092
HNRNPL	0.67611	1.094988	0.715359	1.67608
WDR62	0.678968	0.914023	0.597122	1.399109
LONP1	0.69254	1.090316	0.710254	1.67375
CLN6	0.695673	0.918333	0.599256	1.407306
TNNI3	0.696953	0.918791	0.59992	1.407148
MORC3	0.698825	1.088121	0.709382	1.66907
CXorf40B	0.701204	1.088281	0.706421	1.676559
C1orf74	0.704911	0.920942	0.601336	1.410418
PEMT	0.709329	1.08539	0.705464	1.669926
RPL28	0.710791	0.922387	0.601798	1.413761
DNAAF3	0.717378	0.923977	0.602178	1.417744
YWHAQ	0.719307	1.0814	0.705727	1.65705
DNTTIP2	0.719966	0.924935	0.603727	1.417041
POLK	0.720701	0.925133	0.603855	1.417346
ATXN2L	0.723844	0.925827	0.603763	1.419691
ZC3H7A	0.728252	0.927112	0.60496	1.420816
PPRC1	0.729852	0.92739	0.604576	1.42257
COX7C	0.730081	1.077787	0.704242	1.649466
ZCCHC6	0.732166	1.077346	0.703175	1.650621
HTATSF1	0.732299	1.077164	0.703583	1.649106
UBE2S	0.73556	0.92916	0.606614	1.423208
RPL23A	0.738862	0.930083	0.607361	1.424282
INPP4A	0.74073	1.074652	0.701548	1.646184
RIOK1	0.741076	1.074358	0.70208	1.644036
PKMYT1	0.741896	0.930803	0.60747	1.426232
RPS5	0.743059	0.930861	0.606523	1.428641
CITED4	0.745828	1.073182	0.700173	1.644907
RNF34	0.745844	0.932063	0.609091	1.426292
HERC4	0.745932	0.931922	0.608347	1.427602
HERC3	0.746428	0.931942	0.607916	1.428677
NPM3	0.751031	0.932913	0.607487	1.432666
TMED9	0.751323	1.071635	0.698569	1.643935
FAM213B	0.751529	1.071681	0.698157	1.645046
EMC2	0.752515	1.070927	0.699491	1.639596
SPTLC1	0.758928	1.069223	0.697303	1.639513
DTYMK	0.759133	1.068905	0.698161	1.636524
RPL4	0.761701	0.936199	0.611382	1.433586
PDCD6IP	0.76309	0.936433	0.610955	1.435305
TRAPPC2L	0.763595	1.06782	0.696285	1.637605
KPNA2	0.763868	1.068014	0.695231	1.640685
TNKS1BP1	0.768027	0.937837	0.61223	1.436612
ATP5SL	0.769659	0.938058	0.611435	1.439158

ADSL	0.776891	0.939404	0.609657	1.447503
SHMT2	0.778572	1.062963	0.694503	1.626903
IMP4	0.779587	1.062716	0.694073	1.627157
CENPL	0.780299	1.063357	0.690577	1.637366
SLC25A3	0.784275	1.061288	0.69323	1.62476
NLE1	0.787798	0.943099	0.615597	1.444835
E2F1	0.79324	1.05861	0.691458	1.620715
RPS16	0.794786	0.944879	0.616347	1.448528
DUS3L	0.795083	1.058315	0.690012	1.623203
TUBA3E	0.795323	1.058065	0.690729	1.620753
YEATS4	0.804252	0.947442	0.618205	1.45202
CNTD2	0.80712	0.948333	0.619445	1.451839
YTHDF2	0.810328	0.948875	0.618144	1.456561
UBALD1	0.813959	1.052854	0.685595	1.616846
ILF2	0.817148	0.950769	0.619759	1.45857
PEX10	0.817549	0.950722	0.618874	1.460511
ARMC5	0.818354	0.951037	0.619628	1.4597
NAPSA	0.819423	0.951559	0.621294	1.457387
SEMA3B	0.819833	0.951589	0.620865	1.458484
HNRNPM	0.824416	0.952915	0.622328	1.459111
MRPL11	0.827244	1.048658	0.68442	1.606738
USP15	0.828868	0.954039	0.622708	1.461666
TCP1	0.831166	1.047407	0.684223	1.603369
MRPL54	0.835965	1.046038	0.683149	1.601693
TRIM28	0.839871	1.045234	0.680523	1.605403
MBD3	0.839979	0.956855	0.623631	1.468131
RPS29	0.844888	0.958382	0.626024	1.467188
IRF2BP1	0.846008	0.958474	0.624733	1.470504
PHF11	0.850734	1.041767	0.680273	1.595359
PRMT1	0.85189	1.041816	0.677689	1.60159
SND1	0.853674	1.040918	0.679724	1.594043
SGTA	0.853878	0.96055	0.625889	1.474152
MED26	0.855227	1.040616	0.6785	1.595995
GAMT	0.855421	1.040622	0.678069	1.597028
HNRNPA0	0.855924	1.040235	0.679514	1.592447
TIMM13	0.856081	0.960927	0.62464	1.478259
RHBDD1	0.856391	1.040165	0.679012	1.59341
RPL12	0.857556	0.961689	0.627736	1.473304
CSRNP1	0.858624	0.961906	0.62739	1.474781
C19orf48	0.859453	0.962026	0.626739	1.476684
POM121C	0.860061	0.962376	0.628317	1.474043
HSP90AB1	0.861672	0.962603	0.626988	1.477868
DDX27	0.864781	1.037692	0.677841	1.58858
P2RY11	0.866496	1.037313	0.676736	1.590013

IL13	0.866833	1.037105	0.677451	1.587698
RPS12	0.871245	0.965257	0.62941	1.480309
COL20A1	0.872818	0.965816	0.630879	1.478573
SMPD4	0.873188	1.035567	0.674207	1.59061
YRDC	0.875105	1.034841	0.675152	1.586157
RPL37	0.879763	0.967622	0.631681	1.482223
DNAH10OS	0.881949	1.033024	0.67278	1.586163
PPIA	0.882212	1.03273	0.674479	1.581265
TMEM54	0.885402	1.031896	0.673286	1.581513
SNRPD2	0.8859	1.031696	0.673679	1.579976
PRR22	0.89268	0.971001	0.633215	1.488977
QARS	0.892902	0.971077	0.633425	1.488716
CBARP	0.89484	1.029142	0.672198	1.575627
IRAK4	0.899267	0.972871	0.635499	1.489348
AC104532.1	0.899996	0.973083	0.635811	1.489264
GRK3	0.900716	1.027577	0.670207	1.575505
USP22	0.900806	0.973084	0.633606	1.49445
SLC35B2	0.902558	1.027115	0.669289	1.576248
UBE2I	0.906325	0.974766	0.636841	1.492004
TRMT10C	0.910499	0.975872	0.637445	1.493973
CCNB1IP1	0.910813	0.975908	0.636929	1.495294
SCARF2	0.911027	0.976	0.637382	1.494513
GRWD1	0.915984	0.977317	0.638121	1.496814
TSSK6	0.919157	0.9782	0.639115	1.497187
SPACA4	0.920816	0.978601	0.638822	1.499103
ZNF574	0.92445	1.020863	0.666235	1.564255
MPST	0.925819	1.020569	0.664815	1.566693
PPIB	0.926788	0.980197	0.63978	1.501745
GNRH1	0.927763	0.980385	0.638851	1.504504
LRRC59	0.930517	0.981193	0.640333	1.503498
USE1	0.93369	0.98204	0.640796	1.505006
SNX1	0.939753	0.983689	0.642164	1.50685
HSPA9	0.943972	0.984846	0.643305	1.507715
PMPCA	0.944546	1.015363	0.660765	1.560257
BORA	0.944661	1.015218	0.662744	1.555153
RPS28	0.946447	1.014785	0.661281	1.557262
ZNF699	0.947659	0.98585	0.644199	1.508693
CCDC86	0.94772	1.014404	0.661549	1.555463
TOMM22	0.947723	1.014361	0.662348	1.553454
BAG1	0.948537	0.986071	0.644047	1.509728
RPS8	0.956584	1.011956	0.659688	1.552331
GTPBP4	0.9579	1.011535	0.660779	1.548478
PLK5	0.959529	0.988998	0.645096	1.516235
NOP53	0.960023	1.010992	0.659329	1.550219

NDUFS5	0.963384	1.010047	0.659144	1.547758
DDX20	0.96668	0.990949	0.646824	1.518157
BCL2L12	0.968933	1.008537	0.657513	1.546961
LINS1	0.97098	1.007939	0.658278	1.543331
C1QBP	0.972039	0.99239	0.647408	1.521202
STX16	0.972129	1.007629	0.657871	1.543337
ZNF484	0.978018	0.994019	0.648739	1.523068
EEF2	0.978579	0.99414	0.64733	1.526756
KBTBD3	0.979325	1.005648	0.656846	1.539673
STRC	0.979842	0.99453	0.649881	1.521955
LTV1	0.985808	1.003894	0.65418	1.540559
GPATCH3	0.986216	1.003762	0.655599	1.536821
RCC2	0.987183	1.003498	0.655409	1.536457
SH3BGR	0.989868	1.002764	0.654897	1.535411
NXT1	0.991825	1.002235	0.653861	1.536221
SCARB2	0.993116	1.001876	0.654454	1.533731
MRPS2	0.997905	0.999424	0.649994	1.536704

IDH2, isocitrate dehydrogenase 2; AML, acute myeloid leukemia; CI, confidence interval; HR, hazard ratio.