



Research article

Integrative genomic analysis of a novel small nucleolar RNAs prognostic signature in patients with acute myelocytic leukemia

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Supplementary

Table S1. Survival analysis results of the snoRNAs in AML.

ID	P value	HR	Low 95%CI	High 95%CI
SNORA73B ENSG00000200087	4.68E-05	2.678955	1.666992	4.305241
SNORA65 ENSG00000201302	6.44E-05	2.641105	1.640244	4.252682
snoU13 ENSG00000238372	0.000513	2.29315	1.43575	3.662572
SNORA73 ENSG00000199977	0.000957	0.454641	0.284792	0.725789
SNORD14E ENSG00000200879	0.002331	2.13565	1.310339	3.480779
SNORA14 ENSG00000251922	0.002828	2.00591	1.270196	3.167759
SNORA17 ENSG00000212461	0.003722	0.499791	0.312802	0.798559
SNORD72 ENSG00000212296	0.004803	1.92993	1.222023	3.047921
SNORA25 ENSG00000201957	0.004927	0.505508	0.314203	0.813289
SNORD79 ENSG00000251878	0.006109	1.905578	1.201867	3.021324
SNORD100 ENSG00000221500	0.006747	1.883417	1.191317	2.977595
U3 ENSG00000207119	0.007721	1.8798	1.181531	2.990737
SNORD99 ENSG00000221539	0.008143	1.869591	1.176151	2.971872

SNORD74 ENSG00000200897	0.011311	0.547463	0.343475	0.872598
SNORD116-12 ENSG00000207197	0.013887	0.56051	0.353416	0.888957
SNORA75 ENSG00000212440	0.014834	1.786	1.1201	2.847779
SNORD38 ENSG00000207199	0.015349	0.566706	0.358043	0.896976
SNORA26 ENSG00000212588	0.015644	1.779829	1.115204	2.840548
SNORD104 ENSG00000199753	0.018013	1.720621	1.097471	2.697598
SNORD12B ENSG00000222365	0.018986	1.781297	1.099619	2.885564
SNORD46 ENSG00000200913	0.019119	1.709135	1.091619	2.675973
SNORD48 ENSG00000201823	0.025726	1.677883	1.064746	2.644097
U3 ENSG00000199856	0.026915	0.595614	0.376391	0.942522
SNORA31 ENSG00000253059	0.02825	0.597969	0.377712	0.946666
SNORD112 ENSG00000238966	0.030225	0.606326	0.385642	0.953295
SNORA74 ENSG00000223111	0.032072	0.598394	0.374171	0.956982
SNORD62 ENSG00000199411	0.036171	0.613363	0.388256	0.968985
SNORA35 ENSG00000239182	0.037029	0.607734	0.380575	0.970479
SNORD70 ENSG00000212309	0.043885	1.597007	1.012912	2.517921
SNORA40C ENSG00000212587	0.048305	0.633156	0.402254	0.9966
SNORA70D ENSG00000263666	0.051315	0.636682	0.40432	1.002581
ACA59 ENSG00000251775	0.054116	0.641288	0.408033	1.007886
SNORD12C ENSG00000209042	0.054206	1.571847	0.991863	2.490972
SNORA48 ENSG00000212391	0.054861	0.634458	0.398741	1.009521
SNORD73B ENSG00000201264	0.055094	1.558108	0.990376	2.451293
SNORA19 ENSG00000207468	0.056739	0.638055	0.401901	1.012971
SNORA48 ENSG00000252774	0.062165	0.651539	0.415355	1.022025
SNORA67 ENSG00000252473	0.062549	0.646604	0.408654	1.023109
SNORA2C ENSG00000221491	0.063093	1.539379	0.976732	2.426138
SNORD7 ENSG00000207297	0.073196	1.528761	0.960899	2.432211
U3 ENSG00000212182	0.07332	1.535356	0.960316	2.45473
SNORA12 ENSG00000212175	0.075566	0.662164	0.420242	1.043356
SNORD45 ENSG00000200051	0.077285	0.65384	0.408087	1.047589
SNORA75 ENSG00000212533	0.07819	1.49592	0.955587	2.341783
SNORD6 ENSG00000202314	0.087724	1.493507	0.942422	2.366841
SNORA75 ENSG00000206885	0.096019	1.504251	0.93008	2.432878
SNORA70G ENSG00000206650	0.098906	0.676811	0.425704	1.076034
SNORA63 ENSG00000201791	0.099925	0.68359	0.434496	1.075487
SNORD13P3 ENSG00000239128	0.101297	0.682588	0.432307	1.077768
SCARNA12 ENSG00000238795	0.102168	1.452809	0.92831	2.273653
SNORD115 ENSG00000212411	0.103031	0.679471	0.426982	1.081267
SNORA33 ENSG00000200534	0.104796	1.455228	0.924816	2.289848
SNORA50A ENSG00000281910	0.108421	0.678052	0.42194	1.089621
SNORA81 ENSG00000253092	0.109613	0.686454	0.432968	1.088345
SNORA74 ENSG00000252305	0.109702	0.6828	0.427807	1.089782
SNORD11B ENSG00000271852	0.110504	1.445416	0.919402	2.272375
SNORA25 ENSG00000200075	0.115141	1.451411	0.913101	2.307075

SNORA48 ENSG00000252824	0.118005	0.69667	0.442806	1.096078
SCARNA10 ENSG00000239002	0.1206	1.432079	0.909987	2.253715
SNORA31 ENSG00000252050	0.123746	0.698373	0.442139	1.103103
SNORA31 ENSG00000199477	0.12628	1.42344	0.905257	2.238238
SNORA18 ENSG00000252719	0.135458	0.687935	0.420992	1.124142
SNORA71A ENSG00000225091	0.138374	1.40364	0.896379	2.197959
SNORD60 ENSG00000206630	0.142689	1.398728	0.89305	2.190739
SNORD117 ENSG00000201785	0.144234	0.717099	0.458913	1.120543
SNORA37 ENSG00000207233	0.149875	0.709908	0.44532	1.131703
SNORD116-13 ENSG00000207137	0.152437	0.716788	0.45428	1.130987
SNORA2A ENSG00000206612	0.154307	0.718545	0.455981	1.132299
SNORA7 ENSG00000200620	0.158596	1.393278	0.878601	2.209447
SNORD42 ENSG00000201209	0.160919	0.7195	0.45411	1.139988
SNORA54 ENSG00000207008	0.166245	0.726761	0.462543	1.141907
SNORD127 ENSG00000239043	0.167975	0.723156	0.456165	1.146416
SNORD116-8 ENSG00000207093	0.172821	0.718989	0.447427	1.155375
SNORA51 ENSG00000206878	0.176047	1.36389	0.870044	2.138047
SNORA38 ENSG00000200816	0.176865	0.734567	0.469462	1.149377
SNORA75 ENSG00000212432	0.183072	1.365573	0.863198	2.160329
SNORD56B ENSG00000207444	0.184919	0.738467	0.471711	1.156076
SNORA66 ENSG00000207523	0.185621	1.353813	0.864482	2.120124
SNORA40 ENSG00000212579	0.187334	1.356668	0.862087	2.13499
SNORA68B ENSG00000201388	0.195616	0.725985	0.446996	1.179101
SNORD83A ENSG00000209482	0.197657	1.343564	0.857284	2.105679
SNORA22B ENSG00000206603	0.199333	0.728399	0.448945	1.181804
SNORA30 ENSG00000200063	0.206261	0.732556	0.452115	1.186953
snoU13 ENSG00000238645	0.206296	1.347501	0.848499	2.139966
SNORA11 ENSG00000221245	0.207197	1.341475	0.849827	2.117556
SNORA70 ENSG00000252657	0.212407	1.332199	0.848739	2.091049
SNORA69 ENSG00000212206	0.214039	0.748011	0.473164	1.182509
SNORA25 ENSG00000201245	0.21615	1.328289	0.847062	2.082907
SNORA51 ENSG00000200113	0.217097	0.739264	0.457575	1.194365
SNORD14A ENSG00000272034	0.219081	1.333603	0.842626	2.11066
SNORA74D ENSG00000252213	0.223895	1.333489	0.838627	2.120363
SNORA22 ENSG00000199571	0.224071	0.753384	0.477257	1.189268
SNORD3B-2 ENSG00000262074	0.229922	0.757616	0.481554	1.191937
snoU2-30 ENSG00000201882	0.231156	0.758052	0.481706	1.192933
SNORA80D ENSG00000207217	0.232247	1.33734	0.830074	2.1546
SNORD67 ENSG00000212135	0.23302	0.757801	0.480412	1.195353
SNORD63B ENSG00000222937	0.234557	0.761383	0.485721	1.193491
SNORD3A ENSG00000263934	0.237021	0.762767	0.486916	1.194896
SNORA70B ENSG00000206937	0.243652	0.764173	0.486217	1.201029
SNORD88A ENSG00000221241	0.24684	1.302	0.832984	2.035099
SNORD92 ENSG00000264994	0.24721	0.766127	0.487901	1.203012

SNORD38A ENSG00000202031	0.25456	1.304007	0.825979	2.058691
SNORD101 ENSG00000206754	0.255116	1.308124	0.82366	2.077542
SNORA43 ENSG00000281863	0.259899	0.771525	0.491333	1.211501
SNORA57 ENSG00000223027	0.259988	0.767484	0.484274	1.21632
SNORD67 ENSG00000252427	0.262629	0.773044	0.492719	1.212854
SNORA51 ENSG00000206898	0.266944	1.29998	0.818046	2.065835
SNORA20 ENSG00000207392	0.267311	0.769303	0.483999	1.222785
snoZ6 ENSG00000264452	0.270687	1.286395	0.821779	2.013696
snoU109 ENSG00000238575	0.271392	1.287938	0.820467	2.021756
SNORA12 ENSG00000212464	0.273779	1.284477	0.820367	2.011152
SNORA26 ENSG00000212517	0.275221	1.285038	0.818976	2.016326
snoU13 ENSG00000239035	0.276693	0.77479	0.489232	1.227023
SNORA48 ENSG00000212458	0.278392	0.780204	0.498081	1.222127
SNORD17 ENSG00000212232	0.279237	1.298901	0.808813	2.085948
SNORA59B ENSG00000266079	0.283094	1.286269	0.812264	2.036884
SNORA40 ENSG00000253047	0.283388	1.278174	0.816288	2.001411
SNORA1B ENSG00000199405	0.288098	0.783511	0.499525	1.228948
SNORA77 ENSG00000221083	0.290208	1.276383	0.812058	2.006204
SNORD114-1 ENSG00000199575	0.290313	1.280583	0.809705	2.025295
SNORD3B-1 ENSG00000265185	0.293494	0.785737	0.501059	1.232156
U3 ENSG00000201674	0.294676	1.2695	0.812464	1.983633
SNORD13P1 ENSG00000238498	0.295466	0.785544	0.499785	1.23469
SNORA70 ENSG00000201376	0.296674	0.782059	0.492871	1.240925
SNORA69 ENSG00000206622	0.298458	1.27976	0.803872	2.037374
SNORA70 ENSG00000200237	0.298909	1.275928	0.805663	2.020686
SNORA2 ENSG00000202343	0.301797	1.27174	0.805822	2.007046
SNORA7 ENSG00000206913	0.311124	1.260963	0.805075	1.975007
SNORD116-16 ENSG00000207263	0.311329	1.26802	0.800729	2.008012
SNORD27 ENSG00000252128	0.315835	1.267307	0.797721	2.013321
SNORD63 ENSG00000252112	0.316644	0.794964	0.507342	1.245645
SNORD116-19 ENSG00000207460	0.317533	1.27331	0.792816	2.045013
SNORD116-27 ENSG00000251896	0.32369	0.797905	0.509599	1.24932
SNORA53 ENSG00000212443	0.33066	1.252153	0.795972	1.969775
SNORA60 ENSG00000199266	0.332558	1.247182	0.797794	1.949706
SNORD13E ENSG00000238311	0.333869	0.796588	0.502245	1.263434
SNORD45 ENSG00000200706	0.33887	0.800824	0.507988	1.262467
SNORA55 ENSG00000201457	0.339333	1.248992	0.791569	1.970743
SNORA74B ENSG00000212402	0.339519	1.247923	0.792143	1.965948
SNORA47 ENSG00000238961	0.341327	0.79323	0.49225	1.278243
SNORD1B ENSG00000199961	0.34232	1.247872	0.790086	1.970907
SNORD77 ENSG00000212279	0.342536	1.247508	0.79017	1.969546
SNORA12 ENSG00000212342	0.348229	0.804644	0.510937	1.267184
SNORD60 ENSG00000252692	0.357052	0.802052	0.501576	1.282532
SNORA74A ENSG00000200959	0.358879	1.231615	0.789229	1.921969

U3 ENSG00000212211	0.363161	1.233737	0.784528	1.940156
SNORA71D ENSG00000200354	0.364657	0.809256	0.512108	1.278821
SCARNA18B ENSG00000238754	0.375246	1.230245	0.778165	1.944965
SNORA3B ENSG00000212607	0.382948	1.220436	0.780125	1.909264
SNORA11 ENSG00000221716	0.400607	0.823882	0.52442	1.294348
SNORD14 ENSG00000202479	0.401604	0.824003	0.524174	1.295334
SNORA15 ENSG00000207168	0.402288	1.2147	0.770548	1.914863
SNORA58B ENSG00000201129	0.422967	1.205192	0.763467	1.902489
SNORD96B ENSG00000208883	0.423048	1.210301	0.758749	1.930583
SNORA70 ENSG00000202379	0.423115	1.207615	0.761141	1.915985
SNORD53B ENSG00000265706	0.423406	1.201054	0.766948	1.880872
SNORA46 ENSG00000212371	0.423501	1.20514	0.763113	1.903208
SNORA31 ENSG00000252096	0.43181	0.834267	0.531001	1.310733
SNORD51 ENSG00000207047	0.433684	1.209005	0.751749	1.944391
SNORA9 ENSG00000252192	0.437707	0.838176	0.536685	1.309036
SNORA58 ENSG00000249020	0.438525	1.194453	0.761958	1.872437
SNORA70 ENSG00000253042	0.440459	0.838723	0.536481	1.311242
SNORD116-2 ENSG00000207001	0.454974	0.84086	0.533648	1.32493
SNORA81 ENSG00000252677	0.455413	1.18609	0.757702	1.856679
SNORA51 ENSG00000271798	0.456543	1.18475	0.758248	1.851153
SNORD113-3 ENSG00000201700	0.457126	1.191699	0.750594	1.89203
SNORD45 ENSG00000252438	0.457136	1.187993	0.754421	1.870741
SNORA1 ENSG00000202059	0.457338	1.187068	0.755229	1.865831
SNORD93 ENSG00000221740	0.460301	1.189501	0.750426	1.885479
snoZ196 ENSG00000281780	0.460981	1.185149	0.754475	1.861664
SNORA43 ENSG00000252461	0.462603	1.184802	0.753608	1.862714
SNORA30 ENSG00000206755	0.467014	0.84619	0.539533	1.327145
SNORA76 ENSG00000252904	0.467939	0.845099	0.53646	1.331306
ACA64 ENSG00000238685	0.478983	0.851212	0.544934	1.329632
SNORA7 ENSG00000222604	0.481081	0.848592	0.53747	1.339813
SNORA75 ENSG00000212593	0.482209	0.851334	0.543438	1.333675
SNORD116-26 ENSG00000251815	0.483667	0.84668	0.531443	1.348906
SNORA25 ENSG00000252993	0.485679	0.850921	0.540497	1.339631
SNORA49 ENSG00000208892	0.488001	1.17226	0.748077	1.836968
SNORD39 ENSG00000263723	0.496885	1.175958	0.736753	1.876989
U3 ENSG00000271817	0.49697	1.167628	0.746626	1.826022
SNORD105 ENSG00000209645	0.497821	0.856369	0.546983	1.34075
SNORD112 ENSG00000275662	0.498398	1.178875	0.732094	1.898316
SNORA36 ENSG00000200294	0.498607	0.85317	0.538624	1.351405
SNORD56 ENSG00000201151	0.498843	1.168982	0.743532	1.837873
SNORD126 ENSG00000238344	0.499121	1.170749	0.741183	1.849277
SNORA72 ENSG00000201944	0.500901	0.856451	0.545424	1.344839
SNORA36C ENSG00000207016	0.501663	0.857651	0.547983	1.342313
SNORD37 ENSG00000206775	0.502869	1.171838	0.736889	1.863517

SNORA18 ENSG00000206592	0.506168	1.164181	0.743676	1.822458
U3 ENSG00000212195	0.506627	1.163661	0.743965	1.820121
SNORD94 ENSG00000208772	0.51343	1.161488	0.741354	1.819717
SNORA51 ENSG00000206961	0.515294	0.86056	0.547409	1.352854
SNORD38 ENSG00000252408	0.518694	0.861918	0.548877	1.353495
SNORA48 ENSG00000212445	0.520429	0.86338	0.55162	1.351338
SNORA40B ENSG00000208308	0.522871	0.862609	0.548173	1.357408
SNORA46 ENSG00000207493	0.530226	1.153455	0.738574	1.801388
SNORD74 ENSG00000200999	0.534198	0.866804	0.552311	1.360375
SNORD19B ENSG00000280904	0.535985	1.154026	0.733139	1.816539
SNORA70F ENSG00000206869	0.540925	0.864395	0.541796	1.379078
SNORA16 ENSG00000212293	0.541925	1.152684	0.730131	1.819783
SNORA51 ENSG00000207022	0.541939	1.151065	0.732395	1.809067
SNORA25 ENSG00000200991	0.544451	0.866736	0.545793	1.376403
SNORA80A ENSG00000200792	0.553404	0.870399	0.550005	1.377434
SNORA25 ENSG00000200652	0.563408	0.872422	0.549111	1.386095
SNORA9B ENSG00000206897	0.564562	0.872494	0.548558	1.387723
snoU13 ENSG00000239096	0.566431	1.140345	0.727862	1.786584
SNORA19 ENSG00000222588	0.568858	0.876825	0.557861	1.378161
SNORA33 ENSG00000252045	0.569411	1.144741	0.718551	1.823714
SNORA64 ENSG00000202517	0.576501	1.135922	0.726295	1.776575
SNORD111B ENSG00000221514	0.586176	0.882569	0.562893	1.383793
SNORD71 ENSG00000223224	0.590182	0.883714	0.563547	1.385776
ACA64 ENSG00000239005	0.59276	1.130083	0.72191	1.769039
SNORA24B ENSG00000206903	0.595215	1.128597	0.722306	1.763423
snoU13 ENSG00000238295	0.603199	1.134558	0.704854	1.826225
SNORA27 ENSG00000201807	0.606331	1.126457	0.716181	1.771765
snoZ6 ENSG00000266692	0.606395	0.887921	0.564919	1.395606
SNORD30 ENSG00000277846	0.607885	1.126724	0.7143	1.777276
SNORD116-14 ENSG00000206621	0.609367	1.124804	0.716409	1.766008
U3 ENSG00000212539	0.610114	1.126057	0.71347	1.777234
SNORA31 ENSG00000251999	0.610458	1.134322	0.698461	1.842173
SNORD91A ENSG00000212163	0.612068	1.125593	0.712523	1.778132
SNORA23 ENSG00000201998	0.612215	1.124875	0.713694	1.77295
SNORA15B-2 ENSG00000207062	0.61707	0.890761	0.566019	1.401816
snoU13 ENSG00000239079	0.625764	1.119494	0.711234	1.762101
SNORD74B ENSG00000201025	0.627906	1.117871	0.712366	1.754205
SNORA70E ENSG00000207221	0.629519	0.893976	0.56698	1.409562
SNORA72 ENSG00000200355	0.629559	0.894412	0.568349	1.407536
SNORD78 ENSG00000212168	0.629766	0.893152	0.56415	1.414021
SNORA58 ENSG00000201003	0.634935	1.115866	0.709688	1.754512
SNORD59A ENSG00000207031	0.635998	0.896339	0.569715	1.41022
SNORA36 ENSG00000206731	0.638621	0.897827	0.57259	1.4078
SNORA79B ENSG00000222489	0.641237	1.116573	0.702205	1.775457

SNORD58 ENSG00000212615	0.647878	0.901498	0.577692	1.406801
U3 ENSG00000201346	0.648297	0.898966	0.568827	1.420712
SNORD36C ENSG00000252542	0.650186	1.108983	0.709197	1.734137
snoU2_19 ENSG00000201592	0.652519	1.108733	0.707455	1.737622
SNORA33 ENSG00000201827	0.654396	1.108393	0.706342	1.739291
SNORD111 ENSG00000252230	0.660547	1.106826	0.703644	1.741029
SNORD113-2 ENSG00000212384	0.667417	1.107266	0.695674	1.762375
SNORD42B ENSG00000238423	0.667468	1.102579	0.706212	1.721409
SNORA28 ENSG00000272533	0.66795	1.105428	0.699256	1.747531
SNORA11F ENSG00000221164	0.668436	0.905265	0.574081	1.427507
SNORA74C-1 ENSG00000265733	0.66989	0.906169	0.576066	1.42543
SNORD124 ENSG00000238793	0.674155	0.906439	0.573416	1.432872
SNORD18 ENSG00000200677	0.680879	0.910631	0.582882	1.42267
SNORD11 ENSG00000238317	0.681526	1.104356	0.68742	1.774173
SNORD114-3 ENSG00000201839	0.681896	1.101107	0.694718	1.74522
SNORA80B ENSG00000206633	0.68626	0.91149	0.581381	1.429035
SNORD121B ENSG00000238300	0.686783	1.097179	0.699037	1.722084
SNORA26 ENSG00000252236	0.686863	0.911444	0.580679	1.430619
SNORA7B ENSG00000207088	0.695509	0.910261	0.568436	1.457641
SNORD105B ENSG00000238531	0.696973	0.91258	0.575848	1.446219
SNORA14B ENSG00000207181	0.704048	1.091328	0.695213	1.713139
ACA64 ENSG00000238934	0.705078	0.916957	0.585288	1.436574
SNORA48 ENSG00000212181	0.706376	0.917098	0.584627	1.438641
SNORA36B ENSG00000222370	0.716136	0.920574	0.589295	1.438085
SNORA80E ENSG00000207475	0.720817	0.921303	0.587719	1.444226
SNORD82 ENSG00000202400	0.724775	1.086702	0.684058	1.726347
SNORD116-1 ENSG00000207063	0.727985	0.920381	0.576656	1.468987
U8 ENSG00000212145	0.73296	1.081353	0.689987	1.694705
SNORA77 ENSG00000221643	0.737336	0.924098	0.582609	1.465747
SNORD116-4 ENSG00000275529	0.739072	1.083292	0.676537	1.7346
SNORA36A ENSG00000206948	0.741472	1.078245	0.689196	1.686913
SNORA16 ENSG00000201467	0.74323	1.07883	0.685155	1.698703
SNORA27 ENSG00000200235	0.751214	1.08025	0.670307	1.740907
SNORA68 ENSG00000212565	0.756277	1.074088	0.683956	1.686752
SNORA70I ENSG00000207274	0.757478	1.072692	0.687142	1.67457
SNORA25 ENSG00000200536	0.75876	1.074059	0.680781	1.694529
SNORA31 ENSG00000252349	0.759525	1.073012	0.683353	1.684862
SNORA7 ENSG00000206976	0.760015	0.932535	0.595696	1.459842
SNORA84 ENSG00000239183	0.760133	0.932494	0.595366	1.460522
SNORA22 ENSG00000206634	0.760271	0.932275	0.594171	1.462772
SNORD63 ENSG00000206989	0.760861	1.073222	0.680853	1.691709
SNORD9 ENSG00000199436	0.762436	1.07224	0.682154	1.685393
SNORA62 ENSG00000202374	0.762658	1.071999	0.682701	1.683287
SNORA51 ENSG00000207171	0.772819	1.07023	0.675076	1.696686

SNORA51 ENSG00000201863	0.774049	1.070925	0.670793	1.709738
SNORA11B ENSG00000221102	0.777426	1.067454	0.67887	1.678461
SNORD69 ENSG00000212452	0.779256	0.93805	0.599806	1.467036
SNORA62 ENSG00000201542	0.780524	0.938466	0.600351	1.467004
SNORD89 ENSG00000212283	0.783081	1.064652	0.681571	1.663044
SNORA81 ENSG00000238390	0.785197	1.067374	0.667865	1.705864
SNORA3 ENSG00000221639	0.785812	1.064948	0.676436	1.676604
SNORD15B ENSG00000207445	0.786718	1.06433	0.677552	1.671901
SNORA67 ENSG00000201619	0.787948	1.063961	0.677212	1.671578
SNORD116-7 ENSG00000207133	0.79198	1.064667	0.668309	1.696093
SNORA14A ENSG00000201643	0.794549	1.06379	0.66792	1.694289
SNORA4 ENSG00000202434	0.797841	0.943478	0.604482	1.472584
SNORA71C ENSG00000201512	0.803052	1.05877	0.675918	1.658475
snoU109 ENSG00000238832	0.810583	0.94592	0.600343	1.490421
SNORA63C ENSG00000201448	0.811317	1.058604	0.663239	1.689651
U3 ENSG00000221044	0.813767	0.947424	0.604489	1.484908
SNORA63 ENSG00000252448	0.815268	0.948077	0.606154	1.482873
SNORA22C ENSG00000207344	0.816999	0.94862	0.606832	1.482915
SNORD70 ENSG00000212534	0.81701	0.948647	0.606981	1.482635
SNORD62A ENSG00000235284	0.817442	0.948683	0.606549	1.483806
SNORA38B ENSG00000200394	0.817865	0.94841	0.60425	1.488593
SNORD121A ENSG00000238886	0.818189	0.947748	0.599752	1.497664
SNORA68 ENSG00000201407	0.819146	0.948055	0.600136	1.497675
SNORA5C ENSG00000201772	0.821286	0.949552	0.605984	1.487911
SNORA73 ENSG00000222145	0.827277	1.052818	0.663076	1.67164
SNORA79 ENSG00000221303	0.828716	0.95147	0.606276	1.493206
SNORD19 ENSG00000212493	0.838342	1.048067	0.667593	1.645381
SNORA5A ENSG00000206838	0.846747	0.95611	0.606511	1.507222
SNORA9 ENSG00000202231	0.846983	0.956326	0.607609	1.505177
SNORD111 ENSG00000221066	0.847388	1.045671	0.663546	1.647855
SNORA62 ENSG00000201157	0.849891	0.956528	0.603675	1.515628
SNORA8 ENSG00000206977	0.852737	1.043227	0.667304	1.630926
SNORD3J ENSG00000221400	0.8528	1.043906	0.663041	1.643546
SNORD116-3 ENSG00000207014	0.855089	0.959429	0.615141	1.496411
SNORA13 ENSG00000238363	0.855943	1.044153	0.654908	1.664748
SNORA71B ENSG00000235408	0.858153	1.042341	0.661466	1.642525
U8 ENSG00000206987	0.863906	0.960644	0.606976	1.520387
SNORD15A ENSG00000206941	0.866165	1.039524	0.662299	1.631606
SNORA15B-1 ENSG00000206785	0.867451	1.038999	0.662975	1.628294
SNORD90 ENSG00000212447	0.876009	1.038248	0.647944	1.663661
SNORA59A ENSG00000239149	0.88496	1.033589	0.660672	1.617
SNORD114-4 ENSG00000200832	0.887901	1.033508	0.653569	1.634316
SNORD78 ENSG00000212378	0.891756	1.031991	0.655705	1.624214
SCARNA18 ENSG00000238835	0.895569	1.030831	0.655054	1.622173

SNORA57 ENSG00000212529	0.896215	1.030211	0.658729	1.611187
SNORA16B ENSG00000201544	0.903876	0.972821	0.622032	1.521433
snoU13 ENSG00000239129	0.906404	0.973379	0.620785	1.526238
SNORD113-4 ENSG00000201672	0.907884	1.027529	0.648659	1.627689
SNORD114-7 ENSG00000199390	0.907884	1.027529	0.648659	1.627689
SNORA74 ENSG00000252917	0.908488	0.974141	0.623174	1.522769
SNORA2B ENSG00000207313	0.908605	0.973338	0.613603	1.543974
SNORA26 ENSG00000212624	0.912885	0.974881	0.618042	1.537749
SNORD19 ENSG00000222345	0.916043	1.024564	0.652519	1.608736
SNORD116 ENSG00000252985	0.921748	0.977863	0.625608	1.528458
SNORA80C ENSG00000199787	0.926882	0.978768	0.618901	1.547885
SNORD116-24 ENSG00000207279	0.931102	0.980033	0.620405	1.548127
SNORD116-6 ENSG00000207442	0.931168	0.979932	0.618615	1.552284
SNORD53 ENSG00000265145	0.936653	1.018248	0.65189	1.590499
SNORD113-1 ENSG00000202191	0.93767	0.98183	0.620061	1.55467
SNORD91B ENSG00000275084	0.94573	1.015853	0.645868	1.597785
SNORA76 ENSG00000252122	0.947769	0.98484	0.623546	1.555473
U3 ENSG00000200693	0.949095	0.985241	0.624162	1.555204
SNORA57 ENSG00000212567	0.951122	0.986061	0.629476	1.544643
SNORA67 ENSG00000212338	0.953962	0.986488	0.621593	1.565588
SNORA2 ENSG00000206647	0.954163	0.986992	0.631553	1.542472
U8 ENSG00000238840	0.956974	0.987657	0.629001	1.550818
SNORD116-18 ENSG00000206688	0.958823	1.012486	0.632142	1.621673
snoU83B ENSG00000252945	0.961182	0.988614	0.623385	1.567824
SNORD38C ENSG00000207109	0.967769	0.990781	0.632211	1.552719
SNORD41 ENSG00000209702	0.975297	0.993	0.636579	1.548981
U8 ENSG00000238963	0.975401	0.992828	0.628332	1.568771
SNORD8 ENSG00000200785	0.97953	1.005857	0.643854	1.571395
SNORA62 ENSG00000252443	0.979904	0.994058	0.62522	1.580487
SNORD88 ENSG00000221611	0.984282	0.995499	0.635499	1.559431
SNORD66 ENSG00000212158	0.987024	1.003709	0.642486	1.56802
RNU105B ENSG00000201348	0.987562	1.003549	0.642857	1.566617
SNORD62B ENSG00000231587	0.98772	1.003511	0.64218	1.568152

Table S2. Results of co-expression gene screening of the Teen Prognostic snoRNAs.

ID	ID	r	P value	
SNORA14	RNF130	-0.402	0.000515	
SNORA14	TRIM15	0.4	0.000619	
SNORA14	SYNJ2	0.4	0.000619	
SNORA14	MAST4	0.401	0.0006	
SNORA14	PRX	0.403	0.000563	
SNORA14	KIR2DL4	0.404	0.000545	
SNORA14	LYRM9	0.405	0.000528	
SNORA14	KAZALD1	0.406	0.000512	
SNORA14	FBXW7	0.406	0.000512	
SNORA14	ANKRD16	0.407	0.000495	
SNORA14	DSEL	0.407	0.000495	
SNORA14	PTCD2	0.408	0.00048	
SNORA14	SPTSSB	0.409	0.000465	
SNORA14	PROZ	0.41	0.00045	
SNORA14	HLF	0.41	0.00045	
SNORA14	PDE10A	0.41	0.00045	
SNORA14	GABRA2	0.411	0.000435	
SNORA14	C19orf33	0.411	0.000435	
SNORA14	CD109	0.412	0.000422	
SNORA14	USP6NL	0.412	0.000422	
SNORA14	PLS1	0.412	0.000422	
SNORA14	GFOD1	0.412	0.000422	
SNORA14	ZNF286B	0.413	0.000408	
SNORA14	REN	0.413	0.000408	
SNORA14	DOK5	0.413	0.000408	
SNORA14	ASB9	0.414	0.000395	
SNORA14	KCNJ16	0.414	0.000395	
SNORA14	ID3	0.417	0.000358	
SNORA14	TRIM16L	0.417	0.000358	
SNORA14	AP002360.1	0.418	0.000346	
SNORA14	CDH18	0.418	0.000346	
SNORA14	MAPKBP1	0.42	0.000324	
SNORA14	SPATA24	0.421	0.000314	
SNORA14	TIAM2	0.423	0.000294	
SNORA14	PLCB4	0.425	0.000275	
SNORA14	FAM196A	0.426	0.000266	
SNORA14		1-Dec	0.428	0.000249
SNORA14	UST	0.43	0.000232	
SNORA14	ACTL9	0.431	0.000225	
SNORA14	FAM47E-STBD1	0.431	0.000225	

SNORA14	EFNA1	0.432	0.000217
SNORA14	SESN1	0.432	0.000217
SNORA14	TNFSF4	0.437	0.000183
SNORA14	SCHIP1	0.439	0.000171
SNORA14	IL15RA	0.439	0.000171
SNORA14	NXN	0.44	0.000165
SNORA14	ZNF286A	0.44	0.000165
SNORA14	DNAH3	0.442	0.000154
SNORA14	SLC30A8	0.443	0.000149
SNORA14	ABLIM1	0.443	0.000149
SNORA14	WNT9A	0.444	0.000144
SNORA14	PCSK2	0.446	0.000134
SNORA14	ENAM	0.447	0.00013
SNORA14	CDRT1	0.447	0.00013
SNORA14	FAM47E	0.448	0.000125
SNORA14	CASP10	0.449	0.000121
SNORA14	DUSP26	0.449	0.000121
SNORA14	RFTN1	0.452	0.000109
SNORA14	VAV3	0.452	0.000109
SNORA14	OR2A1	0.453	0.000105
SNORA14	DOCK1	0.453	0.000105
SNORA14	HRH1	0.454	0.000101
SNORA14	PLD5	0.457	9.11E-05
SNORA14	HMHB1	0.46	8.18E-05
SNORA14	MROH2B	0.462	7.62E-05
SNORA14	FAM92A	0.464	7.09E-05
SNORA14	OVCH2	0.465	6.84E-05
SNORA14	SNAP47	0.468	6.13E-05
SNORA14	VSIG10	0.47	5.70E-05
SNORA14	FGF6	0.472	5.30E-05
SNORA14	S100A16	0.472	5.30E-05
SNORA14	KLHL3	0.475	4.74E-05
SNORA14	SEMA6A	0.483	3.52E-05
SNORA14	PTPRD	0.486	3.15E-05
SNORA14	SOCS2	0.486	3.15E-05
SNORA14	RASSF10	0.488	2.92E-05
SNORA14	LCT	0.489	2.81E-05
SNORA14	TTC23L	0.491	2.61E-05
SNORA14	FHL1	0.495	2.24E-05
SNORA14	RASIP1	0.496	2.15E-05
SNORA14	C4orf32	0.497	2.07E-05
SNORA14	USP53	0.497	2.07E-05
SNORA14	C4BPB	0.499	1.92E-05
SNORA14	RAG1	0.502	1.71E-05

SNORA14	LPIN1	0.514	1.07E-05
SNORA14	BCL6B	0.514	1.07E-05
SNORA14	RANBP3L	0.518	9.09E-06
SNORA14	TRIM16	0.518	9.09E-06
SNORA14	XKR4	0.528	6.08E-06
SNORA14	CCDC70	0.537	4.20E-06
SNORA14	GLI2	0.542	3.42E-06
SNORA14	ARMC2	0.55	2.44E-06
SNORA14	ADGRG1	0.552	2.25E-06
SNORA14	LINC00282	0.574	8.69E-07
SNORA14	C10orf128	0.605	2.15E-07
SNORA14	TMEM200A	0.674	7.51E-09
SNORA14	IL2RA	0.912	5.06E-15
SNORA31	VPS16	-0.464	0.002495
SNORA31	PSMD2	-0.464	0.002495
SNORA31	DDX23	-0.442	0.003921
SNORA31	EIF2B1	-0.44	0.004082
SNORA31	SDHA	-0.423	0.005711
SNORA31	DHX16	-0.42	0.006053
SNORA31	POLG	-0.417	0.006413
SNORA31	RTCB	-0.412	0.007057
SNORA31	NDUFS2	-0.411	0.007192
SNORA31	UNC45A	-0.407	0.007758
SNORA31	MED8	-0.406	0.007905
SNORA31	SARS	-0.405	0.008055
SNORA31	COG4	-0.405	0.008055
SNORA31	PSMD13	-0.403	0.008363
SNORA31	KDSR	0.4	0.014042
SNORA31	KHDRBS1	0.4	0.014042
SNORA31	PDE12	0.4	0.014042
SNORA31	PPP3CB	0.4	0.014042
SNORA31	NDUFAF4	0.4	0.014042
SNORA31	FOXJ3	0.401	0.013796
SNORA31	GPALPP1	0.401	0.013796
SNORA31	NSMCE3	0.401	0.013796
SNORA31	ATXN3	0.403	0.013316
SNORA31	MGST2	0.403	0.013316
SNORA31	MEX3A	0.403	0.013316
SNORA31	CREB1	0.403	0.013316
SNORA31	ZNF493	0.403	0.013316
SNORA31	PDE6D	0.404	0.013081
SNORA31	ZNF680	0.404	0.013081
SNORA31	ATXN2	0.404	0.013081
SNORA31	MED10	0.404	0.013081

SNORA31	COX6C	0.404	0.013081
SNORA31	COX17	0.404	0.013081
SNORA31	CAAP1	0.405	0.01285
SNORA31	ZNF573	0.405	0.01285
SNORA31	RCHY1	0.406	0.012623
SNORA31	NUP35	0.406	0.012623
SNORA31	GLS	0.406	0.012623
SNORA31	WDPCP	0.407	0.012399
SNORA31	DYNLL1	0.407	0.012399
SNORA31	NR1D2	0.408	0.012179
SNORA31	ZNF43	0.408	0.012179
SNORA31	VMA21	0.408	0.012179
SNORA31	MAX	0.408	0.012179
SNORA31	RALGAPA1	0.408	0.012179
SNORA31	ZNF91	0.409	0.011962
SNORA31	STYX	0.409	0.011962
SNORA31	SERTAD2	0.409	0.011962
SNORA31	EFCAB5	0.409	0.011962
SNORA31	KATNBL1	0.41	0.011749
SNORA31	LRIG2	0.41	0.011749
SNORA31	TCEAL1	0.41	0.011749
SNORA31	ZNF713	0.41	0.011749
SNORA31	PIAS2	0.41	0.011749
SNORA31	IPMK	0.41	0.011749
SNORA31	AC008758.6	0.411	0.011539
SNORA31	POU5F2	0.412	0.011332
SNORA31	AP003108.2	0.412	0.011332
SNORA31	FKBP7	0.412	0.011332
SNORA31	CETN3	0.412	0.011332
SNORA31	MEX3B	0.413	0.011129
SNORA31	H3F3A	0.413	0.011129
SNORA31	TLK2	0.413	0.011129
SNORA31	SLC20A2	0.414	0.010929
SNORA31	NDUFA4	0.414	0.010929
SNORA31	FAM135A	0.414	0.010929
SNORA31	RAB11FIP2	0.415	0.010732
SNORA31	ACYP2	0.415	0.010732
SNORA31	TATDN1	0.415	0.010732
SNORA31	MIGA1	0.416	0.010538
SNORA31	RSBN1	0.417	0.010347
SNORA31	DNAL4	0.417	0.010347
SNORA31	KDELR1	0.417	0.010347
SNORA31	NFYB	0.417	0.010347
SNORA31	MBTD1	0.417	0.010347

SNORA31	DYNLL2	0.419	0.009975
SNORA31	GOLPH3	0.419	0.009975
SNORA31	MRPS18C	0.419	0.009975
SNORA31	BRMS1L	0.419	0.009975
SNORA31	ZBTB10	0.42	0.009794
SNORA31	EFNA4	0.42	0.009794
SNORA31	G2E3	0.42	0.009794
SNORA31	UBE2G1	0.42	0.009794
SNORA31	MED17	0.421	0.009615
SNORA31	EYS	0.421	0.009615
SNORA31	RPS6KB1	0.421	0.009615
SNORA31	POLR2K	0.421	0.009615
SNORA31	DUSP11	0.422	0.009439
SNORA31	SLITRK2	0.422	0.009439
SNORA31	SLC4A7	0.422	0.009439
SNORA31	RPL35A	0.422	0.009439
SNORA31	PAPD4	0.422	0.009439
SNORA31	YIPF4	0.423	0.009267
SNORA31	AAMDC	0.424	0.009097
SNORA31	PHF5A	0.424	0.009097
SNORA31	TMEM68	0.424	0.009097
SNORA31	GOSR1	0.424	0.009097
SNORA31	RPS27L	0.424	0.009097
SNORA31	DNAAF2	0.424	0.009097
SNORA31	EFNA3	0.425	0.008929
SNORA31	UFM1	0.425	0.008929
SNORA31	PRELID2	0.425	0.008929
SNORA31	PPIL3	0.425	0.008929
SNORA31	SERF1B	0.426	0.008765
SNORA31	SMURF2	0.426	0.008765
SNORA31	PABPC4L	0.426	0.008765
SNORA31	GNPDA2	0.427	0.008603
SNORA31	SDHAF3	0.427	0.008603
SNORA31	MAPK8	0.427	0.008603
SNORA31	HNRNPA0	0.428	0.008444
SNORA31	MDM4	0.428	0.008444
SNORA31	SNRPC	0.429	0.008288
SNORA31	BRAF	0.43	0.008134
SNORA31	MTRNR2L10	0.43	0.008134
SNORA31	KLHL28	0.43	0.008134
SNORA31	ZBED3	0.431	0.007983
SNORA31	SUMO1	0.431	0.007983
SNORA31	GSK3B	0.432	0.007834
SNORA31	DNAL1	0.432	0.007834

SNORA31	TMEM41B	0.432	0.007834
SNORA31	MAGOHB	0.432	0.007834
SNORA31	SNX3	0.432	0.007834
SNORA31	SPCS2	0.433	0.007688
SNORA31	MTRNR2L5	0.433	0.007688
SNORA31	MOB4	0.434	0.007544
SNORA31	UBXN2A	0.434	0.007544
SNORA31	LEPROTL1	0.434	0.007544
SNORA31	ARIH1	0.435	0.007402
SNORA31	KCTD4	0.435	0.007402
SNORA31	HACD1	0.436	0.007263
SNORA31	INAFM2	0.436	0.007263
SNORA31	PCF11	0.436	0.007263
SNORA31	TMPRSS2	0.437	0.007127
SNORA31	SLC10A7	0.437	0.007127
SNORA31	SPPL3	0.437	0.007127
SNORA31	CERS2	0.438	0.006992
SNORA31	DPY19L4	0.438	0.006992
SNORA31	SOX4	0.438	0.006992
SNORA31	MT-ND5	0.439	0.00686
SNORA31	ZNF639	0.439	0.00686
SNORA31	C8orf37	0.439	0.00686
SNORA31	MTRNR2L12	0.44	0.006731
SNORA31	RNF115	0.44	0.006731
SNORA31	AL139353.1	0.441	0.006603
SNORA31	UBE2D2	0.441	0.006603
SNORA31	PBX2	0.441	0.006603
SNORA31	COMMD6	0.441	0.006603
SNORA31	RNF125	0.442	0.006478
SNORA31	USP12	0.442	0.006478
SNORA31	ZNF564	0.442	0.006478
SNORA31	SMIM18	0.442	0.006478
SNORA31	RSBN1L	0.443	0.006354
SNORA31	MSL1	0.444	0.006233
SNORA31	KPNA5	0.444	0.006233
SNORA31	TPRKB	0.444	0.006233
SNORA31	DNAJB7	0.444	0.006233
SNORA31	MARCKSL1	0.444	0.006233
SNORA31	DCK	0.444	0.006233
SNORA31	CRX	0.445	0.006114
SNORA31	AKAP14	0.445	0.006114
SNORA31	CTDSPL2	0.445	0.006114
SNORA31	ATL2	0.445	0.006114
SNORA31	SDHC	0.446	0.005997

SNORA31	HNF1B	0.447	0.005882
SNORA31	SNRPG	0.447	0.005882
SNORA31	AC012309.1	0.447	0.005882
SNORA31	SLC38A9	0.447	0.005882
SNORA31	TXN	0.449	0.005658
SNORA31	AC023055.1	0.449	0.005658
SNORA31	CMC1	0.449	0.005658
SNORA31	SMNDC1	0.449	0.005658
SNORA31	OCLM	0.45	0.005549
SNORA31	KLHL24	0.45	0.005549
SNORA31	CKS2	0.451	0.005442
SNORA31	RAB21	0.451	0.005442
SNORA31	ZNF430	0.451	0.005442
SNORA31	ATP5L	0.451	0.005442
SNORA31	PRKCI	0.452	0.005336
SNORA31	TFAP4	0.453	0.005233
SNORA31	ZBTB25	0.453	0.005233
SNORA31	C15orf61	0.454	0.005131
SNORA31	MT-ATP8	0.454	0.005131
SNORA31	ARL6IP6	0.454	0.005131
SNORA31	RC3H1	0.454	0.005131
SNORA31	ZNF92	0.454	0.005131
SNORA31	MCTS1	0.454	0.005131
SNORA31	SEC61G	0.454	0.005131
SNORA31	OMG	0.455	0.005031
SNORA31	MTRNR2L6	0.455	0.005031
SNORA31	MEMO1	0.456	0.004933
SNORA31	APOOL	0.456	0.004933
SNORA31	C1D	0.457	0.004837
SNORA31	ZNF100	0.457	0.004837
SNORA31	ZNF724	0.457	0.004837
SNORA31	PPM1A	0.458	0.004742
SNORA31	SEH1L	0.458	0.004742
SNORA31	DBI	0.46	0.004558
SNORA31	FCF1	0.461	0.004468
SNORA31	GPR52	0.462	0.00438
SNORA31	GPR27	0.462	0.00438
SNORA31	TIAL1	0.463	0.004293
SNORA31	LRCH3	0.463	0.004293
SNORA31	DCAF16	0.464	0.004208
SNORA31	RDH14	0.464	0.004208
SNORA31	INSM2	0.464	0.004208
SNORA31	ZNF124	0.464	0.004208
SNORA31	ABHD18	0.465	0.004125

SNORA31	MTRNR2L11	0.465	0.004125
SNORA31	EBPL	0.465	0.004125
SNORA31	EEF1AKMT2	0.466	0.004043
SNORA31	TXNL1	0.466	0.004043
SNORA31	CCNI	0.468	0.003883
SNORA31	MSL2	0.468	0.003883
SNORA31	ZCCHC3	0.468	0.003883
SNORA31	SMN1	0.468	0.003883
SNORA31	AEBP2	0.469	0.003806
SNORA31	RPL22	0.469	0.003806
SNORA31	SIRT1	0.469	0.003806
SNORA31	C14orf28	0.47	0.00373
SNORA31	BMT2	0.47	0.00373
SNORA31	PIGP	0.471	0.003655
SNORA31	ABRACL	0.471	0.003655
SNORA31	NAA30	0.472	0.003581
SNORA31	TMEM165	0.472	0.003581
SNORA31	SETD9	0.473	0.003509
SNORA31	CRIPT	0.473	0.003509
SNORA31	CEBPZOS	0.474	0.003439
SNORA31	IER3IP1	0.475	0.003369
SNORA31	SYPL1	0.475	0.003369
SNORA31	TMEM161B	0.475	0.003369
SNORA31	SLC35G3	0.476	0.003301
SNORA31	TGIF2	0.476	0.003301
SNORA31	PTBP2	0.476	0.003301
SNORA31	RNF138	0.476	0.003301
SNORA31	HSPB11	0.477	0.003234
SNORA31	C2orf76	0.477	0.003234
SNORA31	MRPS30	0.478	0.003168
SNORA31	MDFI	0.479	0.003104
SNORA31	CDKL2	0.479	0.003104
SNORA31	NUP210L	0.48	0.003041
SNORA31	SNRPE	0.48	0.003041
SNORA31	TMEM64	0.48	0.003041
SNORA31	ERH	0.482	0.002918
SNORA31	VHL	0.482	0.002918
SNORA31	MTRNR2L7	0.482	0.002918
SNORA31	DNAJC19	0.483	0.002858
SNORA31	TBCA	0.483	0.002858
SNORA31	AC005520.1	0.485	0.002742
SNORA31	CASD1	0.485	0.002742
SNORA31	LAPT4A	0.486	0.002685
SNORA31	TOB2	0.486	0.002685

SNORA31	SPDYA	0.486	0.002685
SNORA31	HACE1	0.486	0.002685
SNORA31	SUB1	0.487	0.00263
SNORA31	SUGT1	0.488	0.002575
SNORA31	ZNF254	0.488	0.002575
SNORA31	MT-ND4L	0.489	0.002522
SNORA31	NDUFB4	0.489	0.002522
SNORA31	ZXDB	0.49	0.00247
SNORA31	METTTL21A	0.491	0.002418
SNORA31	ANAPC10	0.494	0.00227
SNORA31	MAP2K5	0.494	0.00227
SNORA31	NAF1	0.495	0.002223
SNORA31	RPS15A	0.495	0.002223
SNORA31	SF3B6	0.496	0.002176
SNORA31	C16orf87	0.496	0.002176
SNORA31	CTAGE5	0.498	0.002086
SNORA31	MRPS36	0.499	0.002042
SNORA31	AQP11	0.5	0.001999
SNORA31	ST7L	0.501	0.001956
SNORA31	GPR22	0.502	0.001915
SNORA31	PAIP1	0.503	0.001874
SNORA31	USMG5	0.505	0.001795
SNORA31	GATAD2B	0.505	0.001795
SNORA31	ZNF264	0.505	0.001795
SNORA31	MTRNR2L13	0.506	0.001757
SNORA31	HHEX	0.507	0.001719
SNORA31	C4orf46	0.512	0.001542
SNORA31	YAF2	0.512	0.001542
SNORA31	C7orf73	0.513	0.001509
SNORA31	FBXL20	0.515	0.001445
SNORA31	LSM6	0.515	0.001445
SNORA31	RPS27	0.516	0.001413
SNORA31	FAM174A	0.517	0.001382
SNORA31	RCOR3	0.518	0.001352
SNORA31	CBX8	0.518	0.001352
SNORA31	MEX3C	0.52	0.001294
SNORA31	SPRYD7	0.521	0.001266
SNORA31	ZNF383	0.521	0.001266
SNORA31	MATR3	0.521	0.001266
SNORA31	UBE2E1	0.521	0.001266
SNORA31	LIX1L	0.521	0.001266
SNORA31	SLC35A3	0.522	0.001238
SNORA31	EXOSC6	0.523	0.001211
SNORA31	BTF3L4	0.526	0.001132

SNORA31	STX19	0.527	0.001107
SNORA31	RGS20	0.528	0.001083
SNORA31	DTWD2	0.529	0.001059
SNORA31	UBE2B	0.529	0.001059
SNORA31	SLC35F5	0.53	0.001035
SNORA31	EIF4E	0.531	0.001012
SNORA31	COX18	0.531	0.001012
SNORA31	SMIM26	0.532	0.00099
SNORA31	C18orf32	0.535	0.000925
SNORA31	SPIN2A	0.536	0.000904
SNORA31	PEX13	0.536	0.000904
SNORA31	PNRC1	0.537	0.000884
SNORA31	CCNG2	0.537	0.000884
SNORA31	RAB28	0.54	0.000825
SNORA31	TM2D1	0.541	0.000807
SNORA31	LRRC19	0.544	0.000753
SNORA31	C11orf95	0.545	0.000736
SNORA31	TOMM5	0.546	0.000719
SNORA31	DTD2	0.55	0.000655
SNORA31	MAGOH	0.551	0.00064
SNORA31	MED30	0.553	0.000611
SNORA31	TMEM128	0.555	0.000583
SNORA31	IMMP1L	0.559	0.000531
SNORA31	DENND6A	0.562	0.000495
SNORA31	C8orf59	0.562	0.000495
SNORA31	ZNF708	0.562	0.000495
SNORA31	FOXF2	0.563	0.000483
SNORA31	OCIAD1	0.564	0.000472
SNORA31	MPLKIP	0.565	0.000461
SNORA31	PFDN4	0.568	0.000429
SNORA31	FOXC1	0.57	0.000409
SNORA31	SDHAF4	0.573	0.00038
SNORA31	B3GALT2	0.574	0.000371
SNORA31	SUMO2	0.574	0.000371
SNORA31	MTRNR2L3	0.575	0.000362
SNORA31	RUFY2	0.578	0.000337
SNORA31	LSM12	0.581	0.000313
SNORA31	ACKR4	0.582	0.000306
SNORA31	TMEM170A	0.584	0.000291
SNORA31	RAB2B	0.592	0.000239
SNORA31	CHIC2	0.612	0.000144
SNORA31	ZNF738	0.616	0.00013
SNORA31	PLEKHA3	0.618	0.000124
SNORA31	TEX101	0.628	9.53E-05

SNORA31	ANGPTL3	0.653	4.89E-05
SNORA65	TMEM63B	-0.421	0.00213
SNORA65	GBF1	-0.402	0.003348
SNORA65	ATP2A2	-0.402	0.003348
SNORA65	ZC3H8	0.4	0.004047
SNORA65	AC020636.2	0.401	0.003955
SNORA65	UPF3B	0.401	0.003955
SNORA65	IQCH	0.401	0.003955
SNORA65	PHF14	0.402	0.003865
SNORA65	HHAT	0.41	0.00321
SNORA65	LEKR1	0.412	0.003062
SNORA65	TWISTNB	0.418	0.002657
SNORA65	CCDC148	0.422	0.002415
SNORA65	DNAH6	0.424	0.002301
SNORA65	TMEM156	0.429	0.002039
SNORA65	TMEM182	0.433	0.001849
SNORA65	UBE3D	0.438	0.001634
SNORA65	EFCAB5	0.441	0.001517
SNORA65	KLB	0.442	0.00148
SNORA65	SNORA73B	0.467	0.00078
SNORA73	MED29	-0.542	0.006523
SNORA73	PPP1R7	-0.537	0.007036
SNORA73	THAP11	-0.504	0.011424
SNORA73	PTPA	-0.497	0.01262
SNORA73	TEX261	-0.49	0.013926
SNORA73	CSRP1	-0.489	0.014122
SNORA73	PSMF1	-0.485	0.014931
SNORA73	ARL2BP	-0.485	0.014931
SNORA73	RNPEPL1	-0.484	0.015139
SNORA73	BATF	-0.484	0.015139
SNORA73	CENPB	-0.481	0.01578
SNORA73	TMEM203	-0.481	0.01578
SNORA73	SIRT2	-0.479	0.01622
SNORA73	FIBP	-0.478	0.016444
SNORA73	PSMC4	-0.474	0.017368
SNORA73	WAS	-0.474	0.017368
SNORA73	AP2A1	-0.472	0.017847
SNORA73	NDUFS2	-0.47	0.018337
SNORA73	LRP10	-0.47	0.018337
SNORA73	CAPZB	-0.468	0.01884
SNORA73	APEX2	-0.465	0.019615
SNORA73	SPRYD3	-0.465	0.019615
SNORA73	PPP1R9B	-0.464	0.01988
SNORA73	YWHAH	-0.464	0.01988

SNORA73	SLC35A4	-0.463	0.020148
SNORA73	HCCS	-0.463	0.020148
SNORA73	MUL1	-0.463	0.020148
SNORA73	SNX17	-0.462	0.020419
SNORA73	AP2M1	-0.462	0.020419
SNORA73	HPS1	-0.461	0.020693
SNORA73	ABCD1	-0.459	0.021251
SNORA73	PEPD	-0.459	0.021251
SNORA73	LSM10	-0.459	0.021251
SNORA73	PSMD8	-0.459	0.021251
SNORA73	UQCRC1	-0.458	0.021535
SNORA73	SELENOW	-0.458	0.021535
SNORA73	UBE2Q1	-0.458	0.021535
SNORA73	BCKDK	-0.457	0.021822
SNORA73	USP5	-0.455	0.022406
SNORA73	RRAGA	-0.453	0.023004
SNORA73	GNAI2	-0.453	0.023004
SNORA73	SNX8	-0.453	0.023004
SNORA73	KXD1	-0.453	0.023004
SNORA73	ITPK1	-0.452	0.023308
SNORA73	DHX16	-0.451	0.023616
SNORA73	LSM4	-0.451	0.023616
SNORA73	CBR1	-0.45	0.023927
SNORA73	PPP1CA	-0.45	0.023927
SNORA73	SMPD1	-0.45	0.023927
SNORA73	CREB3	-0.45	0.023927
SNORA73	CANT1	-0.449	0.024241
SNORA73	PPM1G	-0.449	0.024241
SNORA73	MON1A	-0.449	0.024241
SNORA73	UNC93B1	-0.448	0.024559
SNORA73	CORO1A	-0.448	0.024559
SNORA73	DNTTIP1	-0.447	0.024881
SNORA73	SARS	-0.446	0.025207
SNORA73	SLC27A4	-0.446	0.025207
SNORA73	KCTD17	-0.446	0.025207
SNORA73	SDHB	-0.445	0.025536
SNORA73	CFL1	-0.445	0.025536
SNORA73	POLR2E	-0.443	0.026205
SNORA73	DAXX	-0.443	0.026205
SNORA73	PSMD4	-0.442	0.026546
SNORA73	POLDIP2	-0.442	0.026546
SNORA73	CISD3	-0.441	0.02689
SNORA73	POLDIP3	-0.44	0.027238
SNORA73	NAIF1	-0.44	0.027238

SNORA73	GSK3A	-0.438	0.027945
SNORA73	VPS25	-0.438	0.027945
SNORA73	HECTD3	-0.438	0.027945
SNORA73	CD37	-0.438	0.027945
SNORA73	PRELID1	-0.438	0.027945
SNORA73	ZFYVE19	-0.437	0.028305
SNORA73	TACO1	-0.437	0.028305
SNORA73	RGS19	-0.436	0.028669
SNORA73	VASP	-0.436	0.028669
SNORA73	CCDC22	-0.436	0.028669
SNORA73	TXN2	-0.435	0.029037
SNORA73	OAZ1	-0.435	0.029037
SNORA73	SFXN3	-0.434	0.029409
SNORA73	ZNF385A	-0.434	0.029409
SNORA73	ZNF296	-0.434	0.029409
SNORA73	TWF2	-0.434	0.029409
SNORA73	CCND3	-0.433	0.029785
SNORA73	NDUFB10	-0.433	0.029785
SNORA73	UBL4A	-0.432	0.030165
SNORA73	DCTN2	-0.431	0.030549
SNORA73	TICAM1	-0.431	0.030549
SNORA73	NUP62	-0.431	0.030549
SNORA73	HINT2	-0.431	0.030549
SNORA73	GPX1	-0.431	0.030549
SNORA73	CALM3	-0.431	0.030549
SNORA73	PFN1	-0.431	0.030549
SNORA73	CCDC167	-0.431	0.030549
SNORA73	MPV17L2	-0.43	0.030937
SNORA73	SELPLG	-0.43	0.030937
SNORA73	MRPS18A	-0.43	0.030937
SNORA73	ZNF213	-0.43	0.030937
SNORA73	MRPL49	-0.43	0.030937
SNORA73	ALDH16A1	-0.43	0.030937
SNORA73	LPCAT3	-0.43	0.030937
SNORA73	TINF2	-0.429	0.03133
SNORA73	C6orf89	-0.429	0.03133
SNORA73	MLX	-0.429	0.03133
SNORA73	ECH1	-0.429	0.03133
SNORA73	TPI1	-0.429	0.03133
SNORA73	PREB	-0.428	0.031727
SNORA73	PNPLA6	-0.428	0.031727
SNORA73	LTBR	-0.428	0.031727
SNORA73	PUSL1	-0.428	0.031727
SNORA73	CYB5R1	-0.427	0.032128

SNORA73	UNC45A	-0.427	0.032128
SNORA73	AKR1B1	-0.427	0.032128
SNORA73	PEF1	-0.427	0.032128
SNORA73	ABHD11	-0.427	0.032128
SNORA73	SRXN1	-0.427	0.032128
SNORA73	ELOVL1	-0.427	0.032128
SNORA73	ARPC1B	-0.426	0.032533
SNORA73	TSP0	-0.426	0.032533
SNORA73	CLTA	-0.425	0.032943
SNORA73	HSD17B10	-0.425	0.032943
SNORA73	FERMT3	-0.425	0.032943
SNORA73	INPPL1	-0.425	0.032943
SNORA73	PMM1	-0.425	0.032943
SNORA73	WDR1	-0.424	0.033358
SNORA73	SDHA	-0.424	0.033358
SNORA73	DESI1	-0.424	0.033358
SNORA73	PPP1R18	-0.423	0.033776
SNORA73	SLC39A1	-0.423	0.033776
SNORA73	FBXW5	-0.423	0.033776
SNORA73	GPKOW	-0.423	0.033776
SNORA73	MRPS34	-0.423	0.033776
SNORA73	DNASE1L1	-0.422	0.0342
SNORA73	RAB1B	-0.422	0.0342
SNORA73	TCTA	-0.422	0.0342
SNORA73	FADD	-0.422	0.0342
SNORA73	BST2	-0.421	0.034627
SNORA73	COPS7A	-0.421	0.034627
SNORA73	FAM58A	-0.421	0.034627
SNORA73	APOBEC3C	-0.421	0.034627
SNORA73	G6PD	-0.421	0.034627
SNORA73	MYH9	-0.42	0.03506
SNORA73	MAP4K1	-0.42	0.03506
SNORA73	EFHD2	-0.419	0.035497
SNORA73	CAP1	-0.419	0.035497
SNORA73	ACO2	-0.419	0.035497
SNORA73	BLOC1S1	-0.419	0.035497
SNORA73	TSR3	-0.418	0.035938
SNORA73	LAMTOR2	-0.418	0.035938
SNORA73	TFEB	-0.418	0.035938
SNORA73	MRPL37	-0.417	0.036385
SNORA73	UPF1	-0.417	0.036385
SNORA73	DOK2	-0.417	0.036385
SNORA73	SCAMP2	-0.417	0.036385
SNORA73	UNC13D	-0.416	0.036836

SNORA73	RAC2	-0.416	0.036836
SNORA73	TOMM40L	-0.416	0.036836
SNORA73	E2F4	-0.416	0.036836
SNORA73	FLII	-0.415	0.037291
SNORA73	CSK	-0.415	0.037291
SNORA73	TGFB1	-0.415	0.037291
SNORA73	PCBP1	-0.415	0.037291
SNORA73	RENBP	-0.415	0.037291
SNORA73	AP3D1	-0.415	0.037291
SNORA73	PLOD1	-0.414	0.037752
SNORA73	CENPX	-0.414	0.037752
SNORA73	PTPN18	-0.414	0.037752
SNORA73	MEA1	-0.414	0.037752
SNORA73	PSMA7	-0.413	0.038217
SNORA73	ATP13A1	-0.413	0.038217
SNORA73	PMVK	-0.413	0.038217
SNORA73	TMEM250	-0.413	0.038217
SNORA73	C11orf24	-0.413	0.038217
SNORA73	CAPN1	-0.413	0.038217
SNORA73	EPN1	-0.412	0.038687
SNORA73	PPP1R12C	-0.412	0.038687
SNORA73	APEH	-0.412	0.038687
SNORA73	SIRT6	-0.412	0.038687
SNORA73	RASGRP4	-0.411	0.039162
SNORA73	IPO13	-0.411	0.039162
SNORA73	CCDC124	-0.41	0.039643
SNORA73	GPSM3	-0.41	0.039643
SNORA73	RPS6KA4	-0.41	0.039643
SNORA73	SHKBP1	-0.409	0.040128
SNORA73	LYPLA2	-0.409	0.040128
SNORA73	BLOC1S3	-0.408	0.040618
SNORA73	NRM	-0.408	0.040618
SNORA73	TRADD	-0.408	0.040618
SNORA73	NABP2	-0.408	0.040618
SNORA73	SLC35C1	-0.408	0.040618
SNORA73	MIER2	-0.408	0.040618
SNORA73	ATP5B	-0.408	0.040618
SNORA73	CNPPD1	-0.407	0.041113
SNORA73	NELFE	-0.407	0.041113
SNORA73	UBA1	-0.407	0.041113
SNORA73	ACTR1A	-0.407	0.041113
SNORA73	UQCR11	-0.407	0.041113
SNORA73	RNASEH2A	-0.407	0.041113
SNORA73	MRPS12	-0.407	0.041113

SNORA73	ASB2	-0.406	0.041613
SNORA73	CC2D1A	-0.406	0.041613
SNORA73	BAG6	-0.406	0.041613
SNORA73	MRPL28	-0.405	0.042118
SNORA73	STK16	-0.405	0.042118
SNORA73	GNB2	-0.405	0.042118
SNORA73	KIAA2013	-0.405	0.042118
SNORA73	CAPNS1	-0.405	0.042118
SNORA73	IRAK1	-0.405	0.042118
SNORA73	DNAJB2	-0.404	0.042629
SNORA73	CD300C	-0.404	0.042629
SNORA73	SHISA5	-0.403	0.043145
SNORA73	AURKAIP1	-0.403	0.043145
SNORA73	TMEM109	-0.403	0.043145
SNORA73	AP2S1	-0.403	0.043145
SNORA73	ZDHHC5	-0.403	0.043145
SNORA73	MOB3A	-0.403	0.043145
SNORA73	STUB1	-0.403	0.043145
SNORA73	MTFP1	-0.403	0.043145
SNORA73	TFE3	-0.402	0.043666
SNORA73	SELENON	-0.402	0.043666
SNORA73	FTSJ1	-0.402	0.043666
SNORA73	TMBIM1	-0.401	0.044192
SNORA73	BORCS6	-0.401	0.044192
SNORA73	STAT6	-0.401	0.044192
SNORA73	FAM110A	-0.401	0.044192
SNORA73	ARHGAP45	-0.4	0.044724
SNORA73	MINK1	-0.4	0.044724
SNORA73	IRF5	-0.4	0.044724
SNORA73	COLGALT1	-0.4	0.044724
SNORA73	MAP3K11	-0.4	0.044724
SNORA73	POLG2	0.4	0.044453
SNORA73	GPR22	0.4	0.044453
SNORA73	AP001931.1	0.401	0.043924
SNORA73	LRRC37B	0.401	0.043924
SNORA73	DNAH7	0.401	0.043924
SNORA73	ZNF577	0.402	0.043401
SNORA73	ODF2L	0.402	0.043401
SNORA73	STPG4	0.402	0.043401
SNORA73	FAM185A	0.402	0.043401
SNORA73	ZNF227	0.402	0.043401
SNORA73	DCUN1D2	0.402	0.043401
SNORA73	PLEKHG6	0.403	0.042882
SNORA73	CLUAP1	0.403	0.042882

SNORA73	PAXBP1	0.403	0.042882
SNORA73	GLIPR1L1	0.403	0.042882
SNORA73	LUC7L	0.403	0.042882
SNORA73	TAS2R4	0.403	0.042882
SNORA73	FNDC9	0.403	0.042882
SNORA73	EFCAB13	0.403	0.042882
SNORA73	UBA5	0.403	0.042882
SNORA73	CDK13	0.403	0.042882
SNORA73	USP37	0.403	0.042882
SNORA73	NEMF	0.404	0.042369
SNORA73	ANGPT2	0.404	0.042369
SNORA73	PPP1R12B	0.404	0.042369
SNORA73	TMEM260	0.405	0.041861
SNORA73	PEX1	0.405	0.041861
SNORA73	SMC5	0.405	0.041861
SNORA73	FBXL4	0.405	0.041861
SNORA73	ZNF233	0.405	0.041861
SNORA73	FAM228A	0.405	0.041861
SNORA73	ADAM21	0.406	0.041359
SNORA73	ZNF750	0.406	0.041359
SNORA73	OR13G1	0.406	0.041359
SNORA73	CARF	0.406	0.041359
SNORA73	RNF43	0.406	0.041359
SNORA73	TYW1	0.406	0.041359
SNORA73	PRSS37	0.406	0.041359
SNORA73	KANSL1	0.406	0.041359
SNORA73	STAG3	0.407	0.040861
SNORA73	MRRF	0.407	0.040861
SNORA73	PLET1	0.407	0.040861
SNORA73	AVL9	0.407	0.040861
SNORA73	C5orf58	0.407	0.040861
SNORA73	KIAA1147	0.408	0.040368
SNORA73	ZNF250	0.408	0.040368
SNORA73	POLR2F	0.408	0.040368
SNORA73	CERS6	0.408	0.040368
SNORA73	C1orf27	0.408	0.040368
SNORA73	OSBPL9	0.408	0.040368
SNORA73	RBM25	0.408	0.040368
SNORA73	ANGEL2	0.409	0.039881
SNORA73	TSGA10	0.409	0.039881
SNORA73	COG5	0.409	0.039881
SNORA73	VPS13D	0.409	0.039881
SNORA73	RNF212B	0.409	0.039881
SNORA73	ATP2C1	0.409	0.039881

SNORA73	WDR73	0.41	0.039398
SNORA73	ERVW-1	0.41	0.039398
SNORA73	CDH12	0.41	0.039398
SNORA73	PFN4	0.41	0.039398
SNORA73	RFX4	0.41	0.039398
SNORA73	TNRC6B	0.41	0.039398
SNORA73	G2E3	0.41	0.039398
SNORA73	ZNF605	0.41	0.039398
SNORA73	MFSD8	0.411	0.038921
SNORA73	GALNT16	0.411	0.038921
SNORA73	ZNF43	0.411	0.038921
SNORA73	KIAA0753	0.411	0.038921
SNORA73	ZNF84	0.411	0.038921
SNORA73	PHKB	0.411	0.038921
SNORA73	TRMT44	0.411	0.038921
SNORA73	RPGR	0.411	0.038921
SNORA73	ZNF720	0.411	0.038921
SNORA73	SLC16A4	0.411	0.038921
SNORA73	HIBCH	0.412	0.038448
SNORA73	LRIG2	0.412	0.038448
SNORA73	ZKSCAN3	0.412	0.038448
SNORA73	VWC2L	0.412	0.038448
SNORA73	PDE3B	0.413	0.03798
SNORA73	RFX7	0.413	0.03798
SNORA73	NOXRED1	0.413	0.03798
SNORA73	CFAP47	0.413	0.03798
SNORA73	UHRF2	0.413	0.03798
SNORA73	CCDC82	0.414	0.037517
SNORA73	UPP2	0.414	0.037517
SNORA73	FBXW12	0.414	0.037517
SNORA73	ZNF852	0.414	0.037517
SNORA73	DNAJB14	0.414	0.037517
SNORA73	EYS	0.415	0.037059
SNORA73	ZNF789	0.415	0.037059
SNORA73	FKTN	0.415	0.037059
SNORA73	FSIP2	0.416	0.036606
SNORA73	RBM4B	0.416	0.036606
SNORA73	TAMM41	0.416	0.036606
SNORA73	KLB	0.416	0.036606
SNORA73	ADH6	0.416	0.036606
SNORA73	SMAD4	0.416	0.036606
SNORA73	SETD2	0.416	0.036606
SNORA73	LRRN3	0.416	0.036606
SNORA73	FRA10AC1	0.416	0.036606

SNORA73	YLPM1	0.417	0.036158
SNORA73	GATS	0.417	0.036158
SNORA73	UBR1	0.417	0.036158
SNORA73	KMT5B	0.417	0.036158
SNORA73	ZBTB20	0.417	0.036158
SNORA73	MKRN20S	0.417	0.036158
SNORA73	FAM208B	0.418	0.035714
SNORA73	PSTK	0.418	0.035714
SNORA73	TTC37	0.419	0.035274
SNORA73	COX20	0.419	0.035274
SNORA73	KATNAL2	0.419	0.035274
SNORA73	LCORL	0.419	0.035274
SNORA73	NRIP2	0.419	0.035274
SNORA73	TP53BP1	0.42	0.03484
SNORA73	KPNA5	0.42	0.03484
SNORA73	SERPIND1	0.42	0.03484
SNORA73	TEX10	0.42	0.03484
SNORA73	STX17	0.42	0.03484
SNORA73	ELP2	0.42	0.03484
SNORA73	B3GALT2	0.421	0.03441
SNORA73	GLRA2	0.421	0.03441
SNORA73	ABCA12	0.421	0.03441
SNORA73	VEGFD	0.421	0.03441
SNORA73	EHBP1	0.421	0.03441
SNORA73	NUBPL	0.421	0.03441
SNORA73	AC010255.3	0.421	0.03441
SNORA73	STXBP4	0.421	0.03441
SNORA73	RPGRIP1L	0.422	0.033984
SNORA73	MTFR1	0.422	0.033984
SNORA73	STAG1	0.422	0.033984
SNORA73	GPR87	0.422	0.033984
SNORA73	ZBTB41	0.422	0.033984
SNORA73	MED23	0.423	0.033563
SNORA73	LIG3	0.423	0.033563
SNORA73	CCDC38	0.423	0.033563
SNORA73	EMSY	0.424	0.033147
SNORA73	EFCAB11	0.424	0.033147
SNORA73	ACAD11	0.425	0.032735
SNORA73	TEX38	0.425	0.032735
SNORA73	ADGRA3	0.425	0.032735
SNORA73	TMPRSS11A	0.426	0.032327
SNORA73	ZNF439	0.426	0.032327
SNORA73	SLC4A5	0.427	0.031924
SNORA73	WDR20	0.427	0.031924

SNORA73	CFAP44	0.427	0.031924
SNORA73	P2RX5-TAX1BP3	0.427	0.031924
SNORA73	PMM2	0.427	0.031924
SNORA73	OXNAD1	0.427	0.031924
SNORA73	INVS	0.427	0.031924
SNORA73	CEP63	0.428	0.031525
SNORA73	C11orf97	0.428	0.031525
SNORA73	ZNF326	0.428	0.031525
SNORA73	NHLRC3	0.428	0.031525
SNORA73	ZNF808	0.428	0.031525
SNORA73	LRRC28	0.428	0.031525
SNORA73	SMIM18	0.428	0.031525
SNORA73	GSX1	0.429	0.03113
SNORA73	MTUS2	0.429	0.03113
SNORA73	EEF1AKMT2	0.429	0.03113
SNORA73	ROPN1B	0.429	0.03113
SNORA73	TLK1	0.429	0.03113
SNORA73	ZNF573	0.429	0.03113
SNORA73	CCDC81	0.429	0.03113
SNORA73	SACS	0.429	0.03113
SNORA73	ZNF736	0.43	0.03074
SNORA73	SETMAR	0.43	0.03074
SNORA73	NME7	0.43	0.03074
SNORA73	ERC1	0.43	0.03074
SNORA73	ZNF780B	0.431	0.030353
SNORA73	SREK1	0.431	0.030353
SNORA73	RSF1	0.431	0.030353
SNORA73	ZSCAN30	0.431	0.030353
SNORA73	BMX	0.432	0.029971
SNORA73	CSPP1	0.432	0.029971
SNORA73	STPG2	0.432	0.029971
SNORA73	TSPYL6	0.432	0.029971
SNORA73	ZNF445	0.433	0.029593
SNORA73	OR52H1	0.433	0.029593
SNORA73	MFN1	0.433	0.029593
SNORA73	F2RL2	0.433	0.029593
SNORA73	ZNF254	0.433	0.029593
SNORA73	SLC24A1	0.434	0.029219
SNORA73	NR2C1	0.434	0.029219
SNORA73	TRIP11	0.434	0.029219
SNORA73	NRDE2	0.434	0.029219
SNORA73	TTC21B	0.435	0.02885
SNORA73	DMXL1	0.435	0.02885
SNORA73	AC020915.2	0.435	0.02885

SNORA73	CYP2A6	0.436	0.028484
SNORA73	CCDC18	0.437	0.028122
SNORA73	ZNF138	0.437	0.028122
SNORA73	OR6V1	0.437	0.028122
SNORA73	HIGD1B	0.437	0.028122
SNORA73	SMAD2	0.437	0.028122
SNORA73	CASD1	0.437	0.028122
SNORA73	METTL25	0.439	0.027411
SNORA73	OR2AE1	0.439	0.027411
SNORA73	AC087632.1	0.439	0.027411
SNORA73	IRAK1BP1	0.439	0.027411
SNORA73	GPR174	0.44	0.027061
SNORA73	CXCR6	0.44	0.027061
SNORA73	MDM4	0.44	0.027061
SNORA73	PPP6R3	0.44	0.027061
SNORA73	TUBGCP3	0.44	0.027061
SNORA73	CC2D2B	0.441	0.026715
SNORA73	TNRC6A	0.441	0.026715
SNORA73	TARSL2	0.441	0.026715
SNORA73	TRNT1	0.441	0.026715
SNORA73	ODF3	0.441	0.026715
SNORA73	NEB	0.441	0.026715
SNORA73	TBC1D19	0.441	0.026715
SNORA73	ZMAT1	0.442	0.026372
SNORA73	KMT2E	0.442	0.026372
SNORA73	APPL2	0.442	0.026372
SNORA73	LHX9	0.442	0.026372
SNORA73	NF1	0.443	0.026034
SNORA73	RBAK	0.443	0.026034
SNORA73	PTCD3	0.444	0.025699
SNORA73	ZCCHC4	0.444	0.025699
SNORA73	ASPN	0.444	0.025699
SNORA73	ZNF280C	0.444	0.025699
SNORA73	ERCC8	0.444	0.025699
SNORA73	AFF4	0.444	0.025699
SNORA73	TTC19	0.445	0.025368
SNORA73	ALG13	0.445	0.025368
SNORA73	ZFC3H1	0.445	0.025368
SNORA73	TMEM161B	0.445	0.025368
SNORA73	GCNT7	0.446	0.025041
SNORA73	SCAPER	0.446	0.025041
SNORA73	TAF1	0.447	0.024717
SNORA73	C18orf25	0.447	0.024717
SNORA73	ZNF680	0.447	0.024717

SNORA73	SENP7	0.447	0.024717
SNORA73	CCDC179	0.447	0.024717
SNORA73	GCC2	0.447	0.024717
SNORA73	DNAH9	0.447	0.024717
SNORA73	PRRC2C	0.447	0.024717
SNORA73	TAS2R3	0.447	0.024717
SNORA73	TTLL5	0.447	0.024717
SNORA73	OR13C8	0.448	0.024397
SNORA73	BAZ2B	0.448	0.024397
SNORA73	NSMAF	0.448	0.024397
SNORA73	LRCH3	0.448	0.024397
SNORA73	PIGL	0.449	0.024081
SNORA73	SMG1	0.449	0.024081
SNORA73	ZNF148	0.449	0.024081
SNORA73	BARHL1	0.45	0.023768
SNORA73	EDDM13	0.45	0.023768
SNORA73	CEP83	0.45	0.023768
SNORA73	ALX4	0.45	0.023768
SNORA73	PUM2	0.45	0.023768
SNORA73	CCDC146	0.45	0.023768
SNORA73	EDRF1	0.45	0.023768
SNORA73	NEUROD2	0.451	0.023459
SNORA73	EID3	0.451	0.023459
SNORA73	CCDC148	0.451	0.023459
SNORA73	UBE2V1	0.452	0.023153
SNORA73	MPHOSPH9	0.452	0.023153
SNORA73	ADH1A	0.452	0.023153
SNORA73	RARB	0.452	0.023153
SNORA73	N4BP2	0.452	0.023153
SNORA73	MBTD1	0.452	0.023153
SNORA73	NIPBL	0.452	0.023153
SNORA73	PCBD2	0.453	0.022851
SNORA73	IQCH	0.453	0.022851
SNORA73	PDE8B	0.454	0.022552
SNORA73	MYSM1	0.454	0.022552
SNORA73	ZZZ3	0.454	0.022552
SNORA73	TDRD3	0.454	0.022552
SNORA73	ANKHD1	0.454	0.022552
SNORA73	SUCO	0.454	0.022552
SNORA73	CCDC7	0.455	0.022257
SNORA73	PPP2R3A	0.455	0.022257
SNORA73	AC006030.1	0.455	0.022257
SNORA73	MBD5	0.456	0.021964
SNORA73	PDE6C	0.456	0.021964

SNORA73	ZNF350	0.457	0.021676
SNORA73	OR52B6	0.457	0.021676
SNORA73	SOGA3	0.457	0.021676
SNORA73	AK9	0.457	0.021676
SNORA73	SCAF8	0.457	0.021676
SNORA73	RUFY2	0.457	0.021676
SNORA73	GPR135	0.458	0.02139
SNORA73	GPX2	0.458	0.02139
SNORA73	BLZF1	0.458	0.02139
SNORA73	TNKS	0.458	0.02139
SNORA73	KIAA0825	0.458	0.02139
SNORA73	ATCAY	0.458	0.02139
SNORA73	DMTF1	0.458	0.02139
SNORA73	NKIRAS1	0.459	0.021108
SNORA73	TMPRSS11D	0.459	0.021108
SNORA73	N4BP2L2	0.459	0.021108
SNORA73	FAM13B	0.459	0.021108
SNORA73	CNNM2	0.46	0.020829
SNORA73	KCNH1	0.46	0.020829
SNORA73	GPATCH2L	0.462	0.020281
SNORA73	NEMP2	0.462	0.020281
SNORA73	PHF3	0.462	0.020281
SNORA73	SBN01	0.462	0.020281
SNORA73	TYW5	0.462	0.020281
SNORA73	PRPF4B	0.462	0.020281
SNORA73	SMG6	0.463	0.020012
SNORA73	PRB3	0.463	0.020012
SNORA73	ELF2	0.464	0.019745
SNORA73	SCFD1	0.465	0.019482
SNORA73	ANKRD50	0.465	0.019482
SNORA73	DLG1	0.466	0.019222
SNORA73	DENND1B	0.466	0.019222
SNORA73	RFX3	0.466	0.019222
SNORA73	RNASEH2B	0.467	0.018965
SNORA73	WDR70	0.467	0.018965
SNORA73	GPR89A	0.468	0.018711
SNORA73	GALK2	0.468	0.018711
SNORA73	UBA6	0.469	0.01846
SNORA73	ARHGAP15	0.469	0.01846
SNORA73	TRDMT1	0.469	0.01846
SNORA73	TTC17	0.469	0.01846
SNORA73	ZNF460	0.47	0.018212
SNORA73	UBR5	0.47	0.018212
SNORA73	RNF115	0.47	0.018212

SNORA73	MATR3	0.471	0.017967
SNORA73	RLIM	0.471	0.017967
SNORA73	ZRANB3	0.471	0.017967
SNORA73	CNOT4	0.472	0.017725
SNORA73	ANKRD36	0.472	0.017725
SNORA73	ZNF407	0.472	0.017725
SNORA73	RNF32	0.472	0.017725
SNORA73	VPS13A	0.473	0.017485
SNORA73	USP24	0.473	0.017485
SNORA73	C9orf3	0.473	0.017485
SNORA73	MAPKAPK5	0.474	0.017249
SNORA73	ZNF518A	0.474	0.017249
SNORA73	TBCK	0.474	0.017249
SNORA73	AC009119.2	0.475	0.017015
SNORA73	SMURF2	0.475	0.017015
SNORA73	MCM9	0.475	0.017015
SNORA73	ZNF280D	0.475	0.017015
SNORA73	MIS18BP1	0.476	0.016784
SNORA73	CAPNS2	0.476	0.016784
SNORA73	RABEP1	0.476	0.016784
SNORA73	KIF27	0.477	0.016556
SNORA73	NAA25	0.477	0.016556
SNORA73	ZNF644	0.477	0.016556
SNORA73	NUDT13	0.477	0.016556
SNORA73	CYP3A4	0.478	0.01633
SNORA73	SPDYE3	0.478	0.01633
SNORA73	ZBED2	0.479	0.016107
SNORA73	CPNE6	0.479	0.016107
SNORA73	CDKAL1	0.48	0.015887
SNORA73	FAM184B	0.48	0.015887
SNORA73	WDR33	0.48	0.015887
SNORA73	CAV3	0.48	0.015887
SNORA73	RIF1	0.48	0.015887
SNORA73	OCLM	0.481	0.01567
SNORA73	POU5F2	0.482	0.015455
SNORA73	PBLD	0.482	0.015455
SNORA73	SH3YL1	0.482	0.015455
SNORA73	SLC25A2	0.483	0.015243
SNORA73	AP002495.1	0.484	0.015033
SNORA73	STAU2	0.484	0.015033
SNORA73	SPDYE5	0.484	0.015033
SNORA73	NR2C2	0.484	0.015033
SNORA73	GOLGB1	0.485	0.014826
SNORA73	BDP1	0.485	0.014826

SNORA73	KIAA1109	0.485	0.014826
SNORA73	XRN1	0.487	0.014419
SNORA73	NGLY1	0.487	0.014419
SNORA73	FAM214A	0.487	0.014419
SNORA73	ZNF33A	0.488	0.01422
SNORA73	PRB4	0.488	0.01422
SNORA73	CLDN24	0.488	0.01422
SNORA73	VPS37A	0.489	0.014023
SNORA73	EPG5	0.489	0.014023
SNORA73	ATG2B	0.489	0.014023
SNORA73	KDM3A	0.489	0.014023
SNORA73	CEP192	0.49	0.013828
SNORA73	MYCBP2	0.49	0.013828
SNORA73	CEP170	0.49	0.013828
SNORA73	SPINK9	0.49	0.013828
SNORA73	ASB14	0.49	0.013828
SNORA73	SPIN2A	0.491	0.013635
SNORA73	AQP11	0.492	0.013445
SNORA73	CNTRL	0.492	0.013445
SNORA73	SMCHD1	0.492	0.013445
SNORA73	BPTF	0.493	0.013258
SNORA73	ZCCHC11	0.493	0.013258
SNORA73	RAB40AL	0.495	0.012889
SNORA73	ZNF26	0.495	0.012889
SNORA73	MED21	0.495	0.012889
SNORA73	ULK4	0.496	0.012709
SNORA73	KAT6B	0.496	0.012709
SNORA73	CCDC66	0.496	0.012709
SNORA73	BRWD1	0.497	0.01253
SNORA73	ZNF91	0.497	0.01253
SNORA73	RCOR3	0.497	0.01253
SNORA73	MKLN1	0.497	0.01253
SNORA73	ANKAR	0.497	0.01253
SNORA73	USP34	0.497	0.01253
SNORA73	FAM227B	0.498	0.012354
SNORA73	GLRA1	0.5	0.012008
SNORA73	PKN2	0.5	0.012008
SNORA73	CCDC171	0.501	0.011838
SNORA73	INO80D	0.502	0.01167
SNORA73	MPP5	0.503	0.011505
SNORA73	FNIP1	0.504	0.011341
SNORA73	SLC35F5	0.504	0.011341
SNORA73	CD160	0.504	0.011341
SNORA73	MAP3K4	0.504	0.011341

SNORA73	SECISBP2	0.505	0.01118
SNORA73	BRAF	0.506	0.011021
SNORA73	WRN	0.506	0.011021
SNORA73	PIAS2	0.506	0.011021
SNORA73	ACKR4	0.506	0.011021
SNORA73	AGO3	0.506	0.011021
SNORA73	OR13C5	0.509	0.010555
SNORA73	EMX1	0.509	0.010555
SNORA73	LHX4	0.509	0.010555
SNORA73	PRH1	0.51	0.010403
SNORA73	ZBED6	0.513	0.009961
SNORA73	OR13F1	0.513	0.009961
SNORA73	ACMSD	0.513	0.009961
SNORA73	BIRC6	0.513	0.009961
SNORA73	FAM196B	0.514	0.009817
SNORA73	BRWD3	0.514	0.009817
SNORA73	KCNS2	0.515	0.009675
SNORA73	PIKFYVE	0.515	0.009675
SNORA73	CCDC181	0.516	0.009535
SNORA73	GOLGA4	0.516	0.009535
SNORA73	OR13C3	0.516	0.009535
SNORA73	OMG	0.517	0.009397
SNORA73	KIAA1468	0.517	0.009397
SNORA73	CLDN20	0.518	0.00926
SNORA73	TCERG1	0.518	0.00926
SNORA73	KRIT1	0.518	0.00926
SNORA73	ATAD2B	0.519	0.009125
SNORA73	SPINK7	0.519	0.009125
SNORA73	MACF1	0.519	0.009125
SNORA73	ADH4	0.519	0.009125
SNORA73	DNAH11	0.519	0.009125
SNORA73	KIAA2026	0.519	0.009125
SNORA73	KMT2C	0.521	0.008861
SNORA73	CEP295	0.523	0.008604
SNORA73	TAS2R20	0.523	0.008604
SNORA73	PACRGL	0.524	0.008478
SNORA73	NFAT5	0.526	0.00823
SNORA73	GREB1L	0.526	0.00823
SNORA73	PHIP	0.526	0.00823
SNORA73	SLC38A4	0.526	0.00823
SNORA73	ERCC6L2	0.526	0.00823
SNORA73	PRB2	0.526	0.00823
SNORA73	KCNJ13	0.527	0.008109
SNORA73	RALGAP1	0.527	0.008109

SNORA73	DST	0.528	0.007989
SNORA73	RICTOR	0.529	0.007871
SNORA73	PIK3C3	0.529	0.007871
SNORA73	OR13C9	0.529	0.007871
SNORA73	ZNF782	0.529	0.007871
SNORA73	PCM1	0.531	0.00764
SNORA73	OR9A2	0.531	0.00764
SNORA73	TAS2R43	0.533	0.007415
SNORA73	ATP9B	0.533	0.007415
SNORA73	PIBF1	0.534	0.007304
SNORA73	RAD51B	0.536	0.007088
SNORA73	MIB1	0.536	0.007088
SNORA73	ALMS1	0.536	0.007088
SNORA73	ZNF66	0.537	0.006982
SNORA73	UBN2	0.537	0.006982
SNORA73	PHC3	0.537	0.006982
SNORA73	LINC00238	0.538	0.006877
SNORA73	ADAM20	0.538	0.006877
SNORA73	ITPR2	0.54	0.006672
SNORA73	ANKRD36C	0.542	0.006473
SNORA73	OR13C4	0.542	0.006473
SNORA73	TAS2R39	0.543	0.006375
SNORA73	C1QTNF3-AMACR	0.544	0.006279
SNORA73	MYO9A	0.545	0.006184
SNORA73	HECTD1	0.545	0.006184
SNORA73	AFG1L	0.546	0.00609
SNORA73	C1QTNF3	0.547	0.005997
SNORA73	RRP8	0.548	0.005906
SNORA73	TRPC5	0.55	0.005728
SNORA73	FNDC3A	0.55	0.005728
SNORA73	PRB1	0.551	0.00564
SNORA73	SENP5	0.552	0.005554
SNORA73	CEP290	0.552	0.005554
SNORA73	AUH	0.552	0.005554
SNORA73	RASA1	0.553	0.005469
SNORA73	CDK12	0.553	0.005469
SNORA73	THOC1	0.555	0.005302
SNORA73	ZNF235	0.555	0.005302
SNORA73	MLYCD	0.555	0.005302
SNORA73	LRRC9	0.556	0.00522
SNORA73	NME9	0.556	0.00522
SNORA73	TAS2R50	0.559	0.004982
SNORA73	TAS2R30	0.559	0.004982
SNORA73	LRRC18	0.56	0.004905

SNORA73	TOGARAM1	0.561	0.004829
SNORA73	KANTR	0.562	0.004754
SNORA73	PRR4	0.563	0.00468
SNORA73	REV1	0.565	0.004535
SNORA73	TAS2R46	0.566	0.004465
SNORA73	ATXN7	0.566	0.004465
SNORA73	ZNF124	0.568	0.004326
SNORA73	TACR1	0.569	0.004258
SNORA73	CHD6	0.569	0.004258
SNORA73	OR13D1	0.57	0.004191
SNORA73	TAS2R14	0.57	0.004191
SNORA73	MGA	0.571	0.004125
SNORA73	RTTN	0.571	0.004125
SNORA73	HTR2B	0.572	0.00406
SNORA73	SETD5	0.573	0.003996
SNORA73	CHD9	0.574	0.003933
SNORA73	DHX36	0.575	0.003871
SNORA73	THADA	0.575	0.003871
SNORA73	ZNF292	0.576	0.003809
SNORA73	PCNX4	0.577	0.003749
SNORA73	FAM217A	0.577	0.003749
SNORA73	ANGPTL7	0.578	0.003689
SNORA73	REV3L	0.578	0.003689
SNORA73	PDZK1	0.58	0.003573
SNORA73	VPS13C	0.58	0.003573
SNORA73	GNRHR	0.581	0.003516
SNORA73	PRH2	0.583	0.003404
SNORA73	OR13C2	0.583	0.003404
SNORA73	CKMT2	0.584	0.003349
SNORA73	VPS13B	0.585	0.003296
SNORA73	TPP2	0.585	0.003296
SNORA73	KCTD4	0.586	0.003243
SNORA73	TASP1	0.588	0.003139
SNORA73	ZNF638	0.589	0.003088
SNORA73	SPICE1	0.59	0.003038
SNORA73	STX19	0.591	0.002989
SNORA73	WDPCP	0.592	0.002941
SNORA73	CCNH	0.592	0.002941
SNORA73	ZMYM2	0.593	0.002893
SNORA73	TTN	0.596	0.002754
SNORA73	ZNF236	0.596	0.002754
SNORA73	C5orf42	0.597	0.002709
SNORA73	FRYL	0.599	0.002621
SNORA73	COA1	0.603	0.002453

SNORA73	TBC1D32	0.603	0.002453
SNORA73	MON2	0.603	0.002453
SNORA73	CYP3A5	0.604	0.002412
SNORA73	KIAA0408	0.61	0.002182
SNORA73	CYP3A7	0.612	0.00211
SNORA73	ATR	0.613	0.002075
SNORA73	AKAP9	0.616	0.001972
SNORA73	HDAC8	0.62	0.001843
SNORA73	SHPRH	0.621	0.001812
SNORA73	ARFGEF1	0.622	0.001781
SNORA73	CENPC	0.626	0.001663
SNORA73	TSHR	0.627	0.001635
SNORA73	KANSL1L	0.628	0.001607
SNORA73	NKTR	0.628	0.001607
SNORA73	ASH1L	0.63	0.001553
SNORA73	ANGPTL1	0.633	0.001474
SNORA73	CEMIP	0.636	0.001399
SNORA73	TAS2R31	0.637	0.001375
SNORA73	TAS2R19	0.645	0.001195
SNORA73	KCNIP4	0.646	0.001174
SNORA73	RBP2	0.651	0.001075
SNORA73	BBIP1	0.666	0.000821
SNORA73	TAS2R13	0.666	0.000821
SNORA73	MTMR7	0.688	0.000548
SNORA73B	RAPGEF1	-0.401	0.001759
SNORA73B	HIST1H2BM	0.404	0.001582
SNORA73B	KLB	0.405	0.00154
SNORA73B	TPTE2	0.407	0.001459
SNORA73B	SCG5	0.409	0.001382
SNORA73B	TMED6	0.411	0.001309
SNORA73B	ZBPB	0.411	0.001309
SNORA73B	TTC30B	0.411	0.001309
SNORA73B	TRIM59	0.438	0.000615
SNORA73B	C17orf98	0.448	0.00046
SNORA73B	SNORA65	0.467	0.000261
SNORA73B	CCDC73	0.481	0.000169
SNORA73B	RAB26	0.484	0.000154
SNORA73B	MMACHC	0.497	0.000102
SNORA73B	SNORD12B	0.609	1.93E-06
SNORA74	NMT1	-0.491	0.00111
SNORA74	HEXIM1	-0.48	0.001441
SNORA74	TNFAIP8L2	-0.46	0.002285
SNORA74	TRIM21	-0.455	0.002558
SNORA74	RNF25	-0.454	0.002616

SNORA74	C1orf74	-0.424	0.005021
SNORA74	ZNF2	-0.423	0.005128
SNORA74	DNTTIP1	-0.422	0.005237
SNORA74	TNFAIP1	-0.421	0.005348
SNORA74	RAB4B	-0.42	0.005461
SNORA74	RNF185	-0.416	0.005936
SNORA74	SPRYD3	-0.411	0.006582
SNORA74	BLOC1S3	-0.408	0.006999
SNORA74	DEDD	-0.407	0.007143
SNORA74	LYSMD1	-0.406	0.00729
SNORA74	MED11	-0.405	0.00744
SNORA74	ZBTB49	-0.404	0.007592
SNORA74	MRPL53	-0.4	0.008229
SNORA74	ZBED6	0.401	0.005061
SNORA74	SDE2	0.401	0.005061
SNORA74	KIAA0895	0.402	0.004956
SNORA74	GPRC5A	0.403	0.004852
SNORA74	BARHL1	0.403	0.004852
SNORA74	FAM71F2	0.404	0.00475
SNORA74	AFF4	0.404	0.00475
SNORA74	HORMAD2	0.405	0.00465
SNORA74	RBM14	0.406	0.004552
SNORA74	GGT6	0.407	0.004456
SNORA74	TAS1R1	0.407	0.004456
SNORA74	AL136531.2	0.408	0.004362
SNORA74	NOLC1	0.408	0.004362
SNORA74	LMOD2	0.409	0.00427
SNORA74	KAT7	0.409	0.00427
SNORA74	RALGPS2	0.411	0.004091
SNORA74	GPR37L1	0.411	0.004091
SNORA74	C18orf25	0.412	0.004003
SNORA74	TCERG1	0.412	0.004003
SNORA74	PIBF1	0.413	0.003918
SNORA74	NUP153	0.413	0.003918
SNORA74	SLC3A1	0.413	0.003918
SNORA74	TSR1	0.413	0.003918
SNORA74	SGPP2	0.413	0.003918
SNORA74	SRRM1	0.415	0.003752
SNORA74	IDI2	0.415	0.003752
SNORA74	TXLNG	0.416	0.003671
SNORA74	POLR3E	0.416	0.003671
SNORA74	PPRC1	0.42	0.003365
SNORA74	ANGPTL1	0.42	0.003365
SNORA74	ELF2	0.421	0.003292

SNORA74	ESRP2	0.422	0.00322
SNORA74	PABPN1L	0.423	0.00315
SNORA74	ARL5B	0.423	0.00315
SNORA74	CCNL1	0.423	0.00315
SNORA74	FOSL1	0.423	0.00315
SNORA74	YTHDF2	0.424	0.003082
SNORA74	IL31	0.425	0.003014
SNORA74	KRR1	0.425	0.003014
SNORA74	PTS	0.425	0.003014
SNORA74	AC008764.1	0.426	0.002948
SNORA74	TASP1	0.43	0.002697
SNORA74	TP53TG5	0.43	0.002697
SNORA74	CCDC38	0.43	0.002697
SNORA74	RBM34	0.432	0.002579
SNORA74	IPO4	0.435	0.002411
SNORA74	TRA2B	0.436	0.002357
SNORA74	ADNP2	0.436	0.002357
SNORA74	PDE12	0.437	0.002305
SNORA74	DNAJC25	0.438	0.002253
SNORA74	CSPP1	0.438	0.002253
SNORA74	ACPT	0.441	0.002105
SNORA74	CCNT1	0.443	0.002011
SNORA74	SUPV3L1	0.445	0.001921
SNORA74	ZNF451	0.447	0.001834
SNORA74	U2AF1	0.448	0.001792
SNORA74	CNTF	0.448	0.001792
SNORA74	AC087632.1	0.454	0.001559
SNORA74	EIF5	0.454	0.001559
SNORA74	ACTN3	0.455	0.001523
SNORA74	SLC25A33	0.455	0.001523
SNORA74	WRN	0.457	0.001453
SNORA74	MPP5	0.459	0.001387
SNORA74	GCNT7	0.459	0.001387
SNORA74	ECD	0.46	0.001354
SNORA74	PSMC6	0.462	0.001292
SNORA74	RBBP6	0.463	0.001261
SNORA74	FAM71F1	0.466	0.001174
SNORA74	DNTTIP2	0.466	0.001174
SNORA74	USP16	0.466	0.001174
SNORA74	TTC25	0.467	0.001147
SNORA74	AC005520.1	0.467	0.001147
SNORA74	PKD2L2	0.473	0.000993
SNORA74	TMEM87A	0.476	0.000923
SNORA74	DHX15	0.478	0.000879

SNORA74	DNAJB6	0.479	0.000858
SNORA74	GTPBP4	0.483	0.000778
SNORA74	DDX21	0.483	0.000778
SNORA74	HIPK1	0.484	0.000759
SNORA74	MRAP	0.487	0.000705
SNORA74	KLHL15	0.487	0.000705
SNORA74	CCNK	0.488	0.000687
SNORA74	RGN	0.489	0.00067
SNORA74	PSTK	0.489	0.00067
SNORA74	MATR3	0.495	0.000577
SNORA74	RLIM	0.495	0.000577
SNORA74	CCDC85C	0.498	0.000535
SNORA74	BZW1	0.5	0.000509
SNORA74	SREK1	0.502	0.000483
SNORA74	UAP1	0.503	0.000471
SNORA74	AC020915.1	0.509	0.000404
SNORA74	SRSF10	0.512	0.000374
SNORA74	DKK4	0.517	0.000328
SNORA74	RBM39	0.522	0.000288
SNORA74	KANSL2	0.523	0.000281
SNORA74	FAIM	0.528	0.000246
SNORA74	GVQW1	0.531	0.000227
SNORA74	ZBTB11	0.536	0.000199
SNORA74	C9orf131	0.537	0.000193
SNORA74	SPINK4	0.539	0.000183
SNORA74	RSRC2	0.542	0.000169
SNORA74	MASP2	0.543	0.000164
SNORA74	DNAJB8	0.544	0.00016
SNORA74	ZNF410	0.544	0.00016
SNORA74	BCLAF1	0.549	0.000139
SNORA74	SFPQ	0.55	0.000136
SNORA74	EID3	0.561	9.99E-05
SNORA74	CATSPERD	0.578	6.16E-05
SNORA74	SH3D19	0.605	2.79E-05
SNORA74	FAM217A	0.616	2.00E-05
SNORA74	DDX47	0.618	1.88E-05
SNORA74	TIMM23B	0.662	4.71E-06
SNORA74	RBM14-RBM4	0.67	3.62E-06
SNORA74	RBM4	0.675	3.07E-06
SNORA75	PIGM	0.4	0.010577
SNORA75	UPF3A	0.4	0.010577
SNORA75	ZNHIT6	0.401	0.010381
SNORA75	SLC12A1	0.401	0.010381
SNORA75	RIC8B	0.402	0.010189

SNORA75	SAAL1	0.402	0.010189
SNORA75	RBBP8	0.403	0.009999
SNORA75	MPHOSPH9	0.403	0.009999
SNORA75	DDX50	0.404	0.009813
SNORA75	RBM26	0.405	0.00963
SNORA75	MNS1	0.405	0.00963
SNORA75	PRIM2	0.405	0.00963
SNORA75	SPICE1	0.405	0.00963
SNORA75	TFB1M	0.406	0.00945
SNORA75	PHF14	0.406	0.00945
SNORA75	TAF1D	0.406	0.00945
SNORA75	ZNF654	0.406	0.00945
SNORA75	ZNF761	0.406	0.00945
SNORA75	BLM	0.407	0.009273
SNORA75	NAA35	0.408	0.009099
SNORA75	TRIM33	0.411	0.008594
SNORA75	CEP162	0.411	0.008594
SNORA75	ZNF562	0.411	0.008594
SNORA75	CEP83	0.412	0.008431
SNORA75	CENPQ	0.413	0.008271
SNORA75	NVL	0.414	0.008114
SNORA75	GSTCD	0.414	0.008114
SNORA75	CEP290	0.414	0.008114
SNORA75	AHI1	0.414	0.008114
SNORA75	RSPRY1	0.415	0.007959
SNORA75	SUV39H2	0.415	0.007959
SNORA75	METTL15	0.415	0.007959
SNORA75	IWS1	0.415	0.007959
SNORA75	FKTN	0.417	0.007658
SNORA75	EXOC6	0.418	0.007511
SNORA75	NUP107	0.421	0.007086
SNORA75	TRIM59	0.421	0.007086
SNORA75	ACYP1	0.424	0.006683
SNORA75	SASS6	0.427	0.0063
SNORA75	LCTL	0.428	0.006177
SNORA75	RAB3GAP2	0.428	0.006177
SNORA75	GOLIM4	0.43	0.005937
SNORA75	C15orf41	0.431	0.005821
SNORA75	CSTF3	0.433	0.005594
SNORA75	METTL8	0.433	0.005594
SNORA75	FANCD20S	0.433	0.005594
SNORA75	ZNF131	0.434	0.005483
SNORA75	INTS7	0.434	0.005483
SNORA75	UBE3D	0.434	0.005483

SNORA75	ORC2	0.436	0.005268
SNORA75	RHOBTB1	0.436	0.005268
SNORA75	PMS1	0.437	0.005163
SNORA75	SHQ1	0.438	0.00506
SNORA75	SMC4	0.438	0.00506
SNORA75	PGBD4	0.439	0.004959
SNORA75	ZNF830	0.44	0.00486
SNORA75	TTC30B	0.441	0.004763
SNORA75	NME7	0.445	0.004391
SNORA75	ITGB3BP	0.449	0.004045
SNORA75	ZNF37A	0.451	0.003882
SNORA75	L2HGDH	0.452	0.003802
SNORA75	SLX4IP	0.455	0.003573
SNORA75	LUC7L3	0.456	0.003499
SNORA75	EFL1	0.457	0.003427
SNORA75	CCAR1	0.465	0.002896
SNORA75	KBTBD6	0.467	0.002776
SNORA75	NUBPL	0.468	0.002717
SNORA75	VTA1	0.473	0.002441
SNORA75	CFAP36	0.477	0.00224
SNORA75	TTF2	0.48	0.002098
SNORA75	UPF3B	0.497	0.001441
SNORD12B	ATG9A	-0.533	0.001456
SNORD12B	ARHGAP31	-0.472	0.004774
SNORD12B	IQSEC1	-0.471	0.004863
SNORD12B	RXRA	-0.462	0.005733
SNORD12B	HK1	-0.456	0.006389
SNORD12B	PANK4	-0.453	0.006742
SNORD12B	FAM129B	-0.448	0.007369
SNORD12B	RUBCN	-0.447	0.0075
SNORD12B	SLC35F6	-0.444	0.007907
SNORD12B	PHLPP2	-0.437	0.008935
SNORD12B	DUSP7	-0.435	0.00925
SNORD12B	MICAL2	-0.433	0.009575
SNORD12B	DPYSL2	-0.432	0.009741
SNORD12B	KIF1C	-0.43	0.010081
SNORD12B	MYH9	-0.429	0.010255
SNORD12B	TLN1	-0.426	0.010792
SNORD12B	EXTL3	-0.425	0.010977
SNORD12B	IL16	-0.424	0.011165
SNORD12B	CORO1C	-0.42	0.011944
SNORD12B	TMEM63B	-0.418	0.012351
SNORD12B	GDPD5	-0.417	0.012559
SNORD12B	ECE1	-0.416	0.012771

SNORD12B	PPARD	-0.416	0.012771
SNORD12B	MOB3C	-0.415	0.012985
SNORD12B	FYN	-0.415	0.012985
SNORD12B	C17orf62	-0.414	0.013203
SNORD12B	TPST2	-0.413	0.013424
SNORD12B	TNFAIP1	-0.412	0.013648
SNORD12B	CHST2	-0.412	0.013648
SNORD12B	PLEC	-0.412	0.013648
SNORD12B	NMT1	-0.411	0.013875
SNORD12B	PHF2	-0.409	0.01434
SNORD12B	GLG1	-0.408	0.014578
SNORD12B	GIMAP7	-0.406	0.015063
SNORD12B	CAPN2	-0.405	0.015311
SNORD12B	KCNK6	-0.405	0.015311
SNORD12B	ARHGAP30	-0.403	0.015818
SNORD12B	CRTC3	-0.403	0.015818
SNORD12B	GIMAP1	-0.402	0.016077
SNORD12B	AP2A1	-0.4	0.016607
SNORD12B	PHOSPHO1	-0.4	0.016607
SNORD12B	HNRNPD	0.4	0.019046
SNORD12B	LDAH	0.4	0.019046
SNORD12B	ST7L	0.4	0.019046
SNORD12B	HIBCH	0.401	0.018745
SNORD12B	RSRC2	0.403	0.018157
SNORD12B	GLMN	0.403	0.018157
SNORD12B	METAP1	0.404	0.017869
SNORD12B	RBM4B	0.404	0.017869
SNORD12B	NAF1	0.405	0.017584
SNORD12B	TADA1	0.405	0.017584
SNORD12B	PPA2	0.405	0.017584
SNORD12B	WDR75	0.405	0.017584
SNORD12B	DPH5	0.405	0.017584
SNORD12B	RBMX	0.405	0.017584
SNORD12B	FASTKD1	0.405	0.017584
SNORD12B	POLG2	0.405	0.017584
SNORD12B	TM7SF3	0.406	0.017304
SNORD12B	ZNF804A	0.406	0.017304
SNORD12B	SREK1	0.407	0.017028
SNORD12B	HACL1	0.407	0.017028
SNORD12B	ZNF350	0.408	0.016755
SNORD12B	RBBP6	0.408	0.016755
SNORD12B	THOC1	0.41	0.016222
SNORD12B	SUCNR1	0.41	0.016222
SNORD12B	TPTE2	0.411	0.015961

SNORD12B	CHD1L	0.411	0.015961
SNORD12B	UHRF2	0.411	0.015961
SNORD12B	IGSF10	0.412	0.015704
SNORD12B	LINC01314	0.412	0.015704
SNORD12B	ETFRF1	0.412	0.015704
SNORD12B	WDR12	0.413	0.01545
SNORD12B	ZNF26	0.413	0.01545
SNORD12B	SPICE1	0.413	0.01545
SNORD12B	EFCAB5	0.413	0.01545
SNORD12B	FUS	0.414	0.0152
SNORD12B	NAP1L1	0.415	0.014953
SNORD12B	RBM25	0.416	0.01471
SNORD12B	CEP290	0.416	0.01471
SNORD12B	EPM2A	0.416	0.01471
SNORD12B	MLLT10	0.417	0.014471
SNORD12B	CCDC125	0.417	0.014471
SNORD12B	CPSF6	0.417	0.014471
SNORD12B	UTP15	0.418	0.014235
SNORD12B	ZNF713	0.419	0.014002
SNORD12B	FANK1	0.419	0.014002
SNORD12B	RPL17	0.42	0.013773
SNORD12B	ATG10	0.42	0.013773
SNORD12B	RBM4	0.42	0.013773
SNORD12B	AEBP2	0.421	0.013547
SNORD12B	ZDHHC21	0.421	0.013547
SNORD12B	DNAJC2	0.421	0.013547
SNORD12B	RIOK1	0.422	0.013324
SNORD12B	DYNC2LI1	0.422	0.013324
SNORD12B	HIST1H2BN	0.422	0.013324
SNORD12B	TPP2	0.423	0.013105
SNORD12B	KLHDC2	0.424	0.012889
SNORD12B	DCAF13	0.425	0.012676
SNORD12B	GPATCH2	0.425	0.012676
SNORD12B	RABEPK	0.426	0.012466
SNORD12B	WDPCP	0.427	0.012259
SNORD12B	TRMT61B	0.427	0.012259
SNORD12B	CSPP1	0.427	0.012259
SNORD12B	CFAP44	0.428	0.012055
SNORD12B	CLINT1	0.428	0.012055
SNORD12B	HDAC2	0.429	0.011854
SNORD12B	SETDB2	0.43	0.011656
SNORD12B	CCDC73	0.43	0.011656
SNORD12B	FAM185A	0.43	0.011656
SNORD12B	FXR1	0.43	0.011656

SNORD12B	DNAAF4	0.431	0.011462
SNORD12B	CARNMT1	0.431	0.011462
SNORD12B	MTX2	0.431	0.011462
SNORD12B	CCT2	0.432	0.01127
SNORD12B	NPM1	0.432	0.01127
SNORD12B	MRAP	0.433	0.01108
SNORD12B	MCCC1	0.436	0.01053
SNORD12B	PMS1	0.436	0.01053
SNORD12B	SRSF6	0.436	0.01053
SNORD12B	APLF	0.437	0.010352
SNORD12B	TARBP1	0.438	0.010176
SNORD12B	DDX10	0.438	0.010176
SNORD12B	VMA21	0.439	0.010004
SNORD12B	AFG1L	0.44	0.009834
SNORD12B	WDR35	0.44	0.009834
SNORD12B	NME7	0.44	0.009834
SNORD12B	NCBP2	0.441	0.009666
SNORD12B	EFCAB11	0.441	0.009666
SNORD12B	CLNS1A	0.441	0.009666
SNORD12B	HNRNPA1	0.442	0.009501
SNORD12B	CDNF	0.444	0.009179
SNORD12B	RBM39	0.444	0.009179
SNORD12B	IMMP2L	0.445	0.009021
SNORD12B	SNAPC1	0.446	0.008866
SNORD12B	CCDC138	0.447	0.008713
SNORD12B	PUS7	0.447	0.008713
SNORD12B	SMYD3	0.448	0.008563
SNORD12B	NUBPL	0.449	0.008415
SNORD12B	TSEN2	0.449	0.008415
SNORD12B	URI1	0.45	0.008269
SNORD12B	IFT74	0.45	0.008269
SNORD12B	ADAT2	0.451	0.008126
SNORD12B	ZNF165	0.451	0.008126
SNORD12B	TRA2B	0.452	0.007984
SNORD12B	NKRF	0.453	0.007845
SNORD12B	SRSF3	0.454	0.007709
SNORD12B	CEP83	0.454	0.007709
SNORD12B	FAM13B	0.454	0.007709
SNORD12B	AHI1	0.454	0.007709
SNORD12B	KIF27	0.455	0.007574
SNORD12B	SUPV3L1	0.455	0.007574
SNORD12B	PPHLN1	0.455	0.007574
SNORD12B	PUM3	0.455	0.007574
SNORD12B	EIF4A1	0.455	0.007574

SNORD12B	NUDCD2	0.456	0.007441
SNORD12B	HNRNPH1	0.456	0.007441
SNORD12B	ATL2	0.456	0.007441
SNORD12B	IQCB1	0.457	0.007311
SNORD12B	TMEM182	0.458	0.007182
SNORD12B	PKD2L2	0.458	0.007182
SNORD12B	NAA35	0.458	0.007182
SNORD12B	BCLAF1	0.46	0.006931
SNORD12B	TFB2M	0.462	0.006688
SNORD12B	ASB14	0.463	0.00657
SNORD12B	SEH1L	0.465	0.006338
SNORD12B	SFPQ	0.466	0.006225
SNORD12B	RPL22L1	0.471	0.005687
SNORD12B	FKTN	0.471	0.005687
SNORD12B	SPRYD4	0.473	0.005484
SNORD12B	MRRF	0.476	0.005191
SNORD12B	SLC25A36	0.477	0.005097
SNORD12B	AQP11	0.483	0.004563
SNORD12B	TCERG1	0.483	0.004563
SNORD12B	MATR3	0.484	0.004479
SNORD12B	EIF4A2	0.487	0.004235
SNORD12B	LRRC34	0.487	0.004235
SNORD12B	TMEM156	0.489	0.004079
SNORD12B	FTCDNL1	0.491	0.003929
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SNORD12B	EID3	0.496	0.003575
SNORD12B	DNAJC27	0.501	0.00325
SNORD12B	ZNF280C	0.513	0.002577
SNORD12B	RABGGTB	0.519	0.002291
SNORD12B	MTAP	0.524	0.002075
SNORD12B	BRMS1L	0.529	0.001878
SNORD12B	ZRANB3	0.532	0.001768
SNORD12B	TAF1D	0.534	0.001698
SNORD12B	NIT2	0.54	0.001503
SNORD12B	KLB	0.542	0.001443
SNORD12B	KCNQ5	0.543	0.001413
SNORD12B	FAM60A	0.6	0.000416
SNORD12B	SNORA73B	0.609	0.00034
SNORD38	POMGNT1	-0.432	0.001065
SNORD38	COQ9	-0.417	0.001597
SNORD38	CCDC51	-0.405	0.002189
SNORD38	ZFAND6	0.4	0.001473
SNORD38	DEFB108B	0.401	0.001434
SNORD38	MYO3B	0.401	0.001434

SNORD38	ADAM9	0.403	0.001359
SNORD38	TSHZ2	0.409	0.001155
SNORD38	FM01	0.41	0.001124
SNORD38	RLIM	0.41	0.001124
SNORD38	MTMR6	0.411	0.001094
SNORD38	MPP5	0.414	0.001007
SNORD38	MITF	0.417	0.000927
SNORD38	PDS5B	0.418	0.000902
SNORD38	SLC1A2	0.419	0.000877
SNORD38	HTR2B	0.427	0.000701
SNORD38	OCLM	0.434	0.000574
SNORD38	GK3P	0.434	0.000574
SNORD38	OMD	0.438	0.000512
SNORD38	ASPN	0.443	0.000442
SNORD38	NRG1	0.443	0.000442
SNORD38	ANKUB1	0.448	0.000382
SNORD38	SNX13	0.449	0.000371
SNORD38	POU5F2	0.455	0.00031
SNORD38	ATAD2B	0.455	0.00031
SNORD38	IFNK	0.457	0.000292
SNORD38	B4GALNT2	0.465	0.00023
SNORD38	MUC5AC	0.472	0.000185
SNORD38	SLC25A48	0.51	5.51E-05
SNORD38	GCNT7	0.514	4.82E-05
SNORD38	CLVS2	0.582	4.40E-06
SNORD38	AC093155.3	0.596	2.60E-06
SNORD38	CTAG2	0.629	7.20E-07
SNORD72	NEK10	0.442	2.38E-06
SNORD79	SRSF9	-0.47	0.002615
SNORD79	DUS3L	-0.432	0.005641
SNORD79	PMPCA	-0.425	0.006462
SNORD79	SIVA1	-0.416	0.007673
SNORD79	ANAPC11	-0.404	0.009605
SNORD79	NDUFAF8	-0.402	0.009966
SNORD79	LPP	0.4	0.011517
SNORD79	CNOT4	0.4	0.011517
SNORD79	GIGYF2	0.4	0.011517
SNORD79	HSD11B2	0.401	0.01131
SNORD79	ATF7IP	0.402	0.011106
SNORD79	ATAD2B	0.402	0.011106
SNORD79	ZNF674	0.402	0.011106
SNORD79	AKAP5	0.403	0.010905
SNORD79	MTRNR2L13	0.403	0.010905
SNORD79	ACOT13	0.404	0.010708

SNORD79	IFNK	0.404	0.010708
SNORD79	SLC6A20	0.404	0.010708
SNORD79	SLC38A9	0.405	0.010514
SNORD79	UCP1	0.406	0.010323
SNORD79	ZNF782	0.406	0.010323
SNORD79	RAB22A	0.407	0.010136
SNORD79	EML6	0.408	0.009951
SNORD79	RUNDC3B	0.409	0.009769
SNORD79	EEA1	0.411	0.009415
SNORD79	PRH1	0.411	0.009415
SNORD79	TMED7-TICAM2	0.412	0.009242
SNORD79	C11orf65	0.412	0.009242
SNORD79	TRIP11	0.413	0.009071
SNORD79	TRIM23	0.414	0.008904
SNORD79	CNNM2	0.414	0.008904
SNORD79	TAS2R30	0.414	0.008904
SNORD79	MTRNR2L12	0.416	0.008578
SNORD79	NCOA3	0.416	0.008578
SNORD79	MTMR10	0.416	0.008578
SNORD79	TMEM132A	0.416	0.008578
SNORD79	MTRNR2L6	0.417	0.008419
SNORD79	PGGT1B	0.418	0.008262
SNORD79	GADL1	0.418	0.008262
SNORD79	TAS2R13	0.419	0.008108
SNORD79	SUSD5	0.421	0.007808
SNORD79	RARB	0.423	0.007518
SNORD79	ERCC4	0.425	0.007238
SNORD79	SMIM18	0.425	0.007238
SNORD79	GDAP2	0.426	0.007101
SNORD79	EXOC8	0.427	0.006967
SNORD79	STX7	0.427	0.006967
SNORD79	PHTF2	0.428	0.006834
SNORD79	PRH2	0.428	0.006834
SNORD79	ASXL2	0.429	0.006705
SNORD79	CAPN7	0.43	0.006577
SNORD79	TAS2R46	0.43	0.006577
SNORD79	MTRNR2L10	0.431	0.006452
SNORD79	LEAP2	0.431	0.006452
SNORD79	LYSMD1	0.432	0.006328
SNORD79	HDAC9	0.434	0.006088
SNORD79	RFTN2	0.434	0.006088
SNORD79	EYS	0.434	0.006088
SNORD79	POU5F2	0.436	0.005856
SNORD79	LRRTM2	0.437	0.005743

SNORD79	TAS2R50	0.437	0.005743
SNORD79	TRIM13	0.438	0.005633
SNORD79	ARHGEF33	0.438	0.005633
SNORD79	FAM118B	0.438	0.005633
SNORD79	ZNF624	0.439	0.005523
SNORD79	HIGD1C	0.44	0.005416
SNORD79	HIVEP1	0.44	0.005416
SNORD79	HERC3	0.443	0.005106
SNORD79	SCLT1	0.443	0.005106
SNORD79	ZNF407	0.445	0.004908
SNORD79	OR5B21	0.446	0.004812
SNORD79	C5orf58	0.451	0.004356
SNORD79	ZNF41	0.452	0.00427
SNORD79	KIAA0825	0.452	0.00427
SNORD79	LCORL	0.453	0.004185
SNORD79	HORMAD1	0.455	0.00402
SNORD79	ADAM30	0.456	0.003939
SNORD79	KCNJ13	0.46	0.003632
SNORD79	APC	0.46	0.003632
SNORD79	SMAD2	0.461	0.003559
SNORD79	C6orf229	0.463	0.003417
SNORD79	USP8	0.464	0.003347
SNORD79	ZNF267	0.464	0.003347
SNORD79	SPATA1	0.465	0.003279
SNORD79	INSL6	0.465	0.003279
SNORD79	AL049844.1	0.466	0.003213
SNORD79	NOTCH2NL	0.466	0.003213
SNORD79	ANKS1B	0.466	0.003213
SNORD79	FAM196B	0.47	0.002958
SNORD79	RAD51B	0.472	0.002838
SNORD79	NHEJ1	0.476	0.00261
SNORD79	MEGF11	0.476	0.00261
SNORD79	WNT4	0.477	0.002556
SNORD79	ANKUB1	0.479	0.002451
SNORD79	ZNF780A	0.479	0.002451
SNORD79	CLOCK	0.482	0.0023
SNORD79	GREB1L	0.483	0.002252
SNORD79	TM4SF20	0.485	0.002158
SNORD79	FBXL2	0.485	0.002158
SNORD79	SLC10A1	0.488	0.002024
SNORD79	ZNF217	0.488	0.002024
SNORD79	PUS10	0.49	0.001939
SNORD79	SPRTN	0.492	0.001858
SNORD79	PTRH2	0.493	0.001818

SNORD79	CASC1	0.494	0.001779
SNORD79	POLK	0.501	0.001528
SNORD79	MCC	0.503	0.001462
SNORD79	ABRA	0.507	0.001339
SNORD79	SNAPC3	0.51	0.001253
SNORD79	FRMD7	0.51	0.001253
SNORD79	GPR18	0.517	0.001071
SNORD79	C1QTNF7	0.519	0.001024
SNORD79	TNFSF15	0.523	0.000935
SNORD79	CC2D2A	0.527	0.000854
SNORD79	LMOD3	0.549	0.000511
SNORD79	GRIP2	0.557	0.000422
SNORD79	DLEU1	0.565	0.000348
SNORD79	RARRES1	0.599	0.000149
SNORD79	PLEKHG7	0.603	0.000134
SNORD79	REC114	0.691	1.20E-05
SNORD116-12	SNX20	-0.491	0.001276
SNORD116-12	FLOT2	-0.442	0.003689
SNORD116-12	CD33	-0.422	0.005539
SNORD116-12	ORMDL2	-0.42	0.005764
SNORD116-12	ILK	-0.406	0.007583
SNORD116-12	CYB561D2	-0.403	0.008033
SNORD116-12	GRIA4	0.4	0.010572
SNORD116-12	DTNB	0.4	0.010572
SNORD116-12	SDE2	0.401	0.010376
SNORD116-12	NOSTRIN	0.402	0.010184
SNORD116-12	KLB	0.402	0.010184
SNORD116-12	RB1CC1	0.402	0.010184
SNORD116-12	ANKDD1B	0.402	0.010184
SNORD116-12	COA1	0.403	0.009995
SNORD116-12	NUP155	0.403	0.009995
SNORD116-12	PDLIM3	0.404	0.009809
SNORD116-12	KAT6A	0.405	0.009626
SNORD116-12	ERCC6L2	0.406	0.009446
SNORD116-12	DNAJB7	0.407	0.00927
SNORD116-12	GALK2	0.407	0.00927
SNORD116-12	ICK	0.408	0.009096
SNORD116-12	RTTN	0.408	0.009096
SNORD116-12	PDK1	0.41	0.008757
SNORD116-12	SACS	0.41	0.008757
SNORD116-12	XPO4	0.414	0.008113
SNORD116-12	GCFC2	0.415	0.007959
SNORD116-12	SLC25A32	0.416	0.007807
SNORD116-12	BICD1	0.417	0.007658

SNORD116-12	NAA15	0.42	0.007226
SNORD116-12	ST8SIA5	0.42	0.007226
SNORD116-12	SNRPN	0.421	0.007087
SNORD116-12	BMI1	0.428	0.006179
SNORD116-12	MRPL42	0.429	0.006058
SNORD116-12	ATAD5	0.429	0.006058
SNORD116-12	C19orf18	0.43	0.00594
SNORD116-12	AKT3	0.431	0.005823
SNORD116-12	TCF12	0.433	0.005596
SNORD116-12	USP13	0.434	0.005486
SNORD116-12	ECT2L	0.435	0.005377
SNORD116-12	MTBP	0.437	0.005166
SNORD116-12	JMJD1C	0.439	0.004963
SNORD116-12	DLG1	0.444	0.004485
SNORD116-12	HIST1H3F	0.448	0.004133
SNORD116-12	CCDC38	0.45	0.003967
SNORD116-12	SMC1B	0.454	0.003652
SNORD116-12	ETV4	0.458	0.003361
SNORD116-12	ASPM	0.461	0.003156
SNORD116-12	CHML	0.461	0.003156
SNORD116-12	HIST1H4L	0.462	0.00309
SNORD116-12	RGPD4	0.464	0.002963
SNORD116-12	FAM227B	0.465	0.002901
SNORD116-12	MANSC4	0.468	0.002722
SNORD116-12	NAA25	0.471	0.002553
SNORD116-12	HIST1H3B	0.485	0.001885
SNORD116-12	STAG1	0.487	0.001804
SNORD116-12	LIPI	0.492	0.001615
SNORD116-12	TPH1	0.526	0.000742
SNORD116-12	ARHGAP19-SLIT1	0.544	0.000482
SNORD116-12	SNURF	0.547	0.000448
SNORD116-12	NFASC	0.592	0.000144
snoU13	FGF5	0.4	0.001811
snoU13	CCDC89	0.401	0.001764
snoU13	NCOA7	0.401	0.001764
snoU13	PTGIR	0.405	0.001588
snoU13	STRBP	0.406	0.001546
snoU13	NPR3	0.407	0.001506
snoU13	LRP6	0.408	0.001466
snoU13	SLC39A14	0.409	0.001428
snoU13	MDN1	0.41	0.00139
snoU13	SSC5D	0.412	0.001318
snoU13	HOMER1	0.413	0.001283
snoU13	PCDHGB2	0.415	0.001215

snoU13	PLCG1	0.415	0.001215	
snoU13	EGFL7	0.415	0.001215	
snoU13	OR14A2	0.416	0.001183	
snoU13	POU4F1	0.416	0.001183	
snoU13	PCDHGA10	0.418	0.001121	
snoU13	BCAT1	0.419	0.00109	
snoU13	C3orf70	0.42	0.001061	
snoU13	LAMC3	0.42	0.001061	
snoU13	DDO	0.42	0.001061	
snoU13	PCDHGB3	0.422	0.001005	
snoU13	RPP40	0.423	0.000978	
snoU13	DDX43	0.425	0.000925	
snoU13	DEPTOR	0.427	0.000876	
snoU13	EVC2	0.429	0.000828	
snoU13	VAV3	0.429	0.000828	
snoU13	KMT2A	0.429	0.000828	
snoU13	UGT8	0.434	0.00072	
snoU13	TBXA2R	0.434	0.00072	
snoU13	SCML2	0.435	0.000701	
snoU13	MMP28	0.435	0.000701	
snoU13	DDAH1	0.436	0.000681	
snoU13	NEURL1B	0.438	0.000644	
snoU13	SBK3	0.438	0.000644	
snoU13	OR1C1	0.442	0.000575	
snoU13	RBM20	0.442	0.000575	
snoU13	TET1	0.444	0.000543	
snoU13	PCDHGA5	0.446	0.000512	
snoU13	FIBCD1	0.446	0.000512	
snoU13	EGLN1	0.448	0.000484	
snoU13	INPP5J	0.449	0.00047	
snoU13	EPB41L2	0.45	0.000457	
snoU13	KIRREL	0.45	0.000457	
snoU13	GNPNAT1	0.452	0.000431	
snoU13	CD34	0.453	0.000419	
snoU13	KIF21A	0.454	0.000407	
snoU13	PCDHGA7	0.457	0.000372	
snoU13	FLT4	0.459	0.000351	
snoU13		11-Sep	0.46	0.000341
snoU13	GAL	0.46	0.000341	
snoU13	PCDHGA8	0.462	0.000321	
snoU13	GNAI1	0.462	0.000321	
snoU13	MREG	0.465	0.000294	
snoU13	TXLNB	0.465	0.000294	
snoU13	PRAME	0.468	0.000269	

snoU13	ERVMER34-1	0.47	0.000253
snoU13	SBK2	0.472	0.000238
snoU13	CCNG1	0.477	0.000205
snoU13	ARC	0.485	0.00016
snoU13	NKAIN1	0.498	0.000107
snoU13	RANBP2	0.506	8.27E-05
snoU13	SMIM2	0.516	5.98E-05
snoU13	KLRG2	0.519	5.42E-05
snoU13	RUNX1T1	0.521	5.08E-05
snoU13	SERP2	0.531	3.64E-05
snoU13	WIPF3	0.576	7.61E-06
snoU13	GRHL2	0.58	6.58E-06
snoU13	UBASH3B	0.582	6.12E-06
snoU13	CAV1	0.583	5.90E-06
snoU13	ELAVL4	0.607	2.42E-06
snoU13	NCALD	0.807	3.95E-10
U3	PROCR	0.401	9.36E-05
U3	CD1A	0.402	9.00E-05
U3	KLHL34	0.403	8.65E-05
U3	SLC6A20	0.405	7.99E-05
U3	HDAC9	0.406	7.68E-05
U3	TDRD15	0.407	7.37E-05
U3	HIST1H3J	0.408	7.09E-05
U3	RAPGEF4	0.41	6.54E-05
U3	TTLL6	0.413	5.79E-05
U3	REC114	0.43	2.87E-05
U3	TAS2R38	0.434	2.43E-05
U3	CD1B	0.443	1.65E-05
U3	FER1L6	0.446	1.45E-05
U3	TNFSF15	0.448	1.33E-05
U3	CRYBA1	0.451	1.17E-05
U3	HIST2H3A	0.455	9.79E-06
U3	FHOD3	0.468	5.47E-06
U3	ADAM30	0.473	4.36E-06
U3	SCGB3A2	0.477	3.63E-06
U3	SUSD5	0.495	1.56E-06
U3	OR2B2	0.497	1.42E-06
U3	SLC10A1	0.5	1.23E-06
U3	FCGBP	0.505	9.64E-07

Table S3. Functional enrichment results of the fourteen prognostic snoRNAs co-expressed genes.

Category	Term	Count	%	PValue	Genes
GOTERM_CC_DIRECT	GO:0005654~nucleoplasm	369	0.142673	2.85E-18	ITGB3BP, RAD51B, AURKAIP1, LSM6, ZNF639, MED23, SPRTN, ZNF638, WDR75, HIST1H2BM, HIST1H2BN, MED29, INTS7, PRIM2, ILK, U2AF1, LSM4, RARB, NUP35, LUC7L3, CCAR1, STAG1, CLNS1A, POLK, KRR1, RXRA, EFCAB13, LIG3, NAA25, MED10, CTDSPL2, PCF11, PPP1CA, UHRF2, CEP162, UBR5, MLLT10, MED17, FLII, FBXL4, PIAS2, MAPK8, TGIF2, SCAF8, IQCB1, SIVA1, FUS, CRT3, GNAI2, SRSF10, TADA1, ARFGF1, RPS27, HEXIM1, RCHY1, ASXL2, NKRF, AEBP2, UAP1, KANSL1, TM2D1, KANSL2, SREK1, TP53BP1, SMAD4, SMYD3, SMAD2, ATR, HNRNPA1, HNRNPA0, GCFC2, UPF3A, SRSF3, ZNF217, UPF3B, NOLC1, DMTF1, SRSF6, SRSF9, PPRC1, H3F3A, SMURF2, KAT6B, ZNF385A, RPP40, KAT6A, PPAR, HNF1B, ELF2, TAF1D, CCNT1, MITF, VPS37A, UTP15, RLIM, GLI2, SENP5, DAXX, BLZF1, ZNF350, BAG6, ZNF148, NSMCE3, FAM129B, TWISTNB, TSEN2, GOLGA4, CCDC181, ATF7IP, CCNK, EMSY, ZBTB20, EXOSC6, CCNH, SNAPC1, TTC37, SNAPC3, RBBP6, SMN1, RBBP8, ZBTB25, EPB41L2, RAB11FIP2, CCND3, MED8, TXN, ASH1L, NAIF1, FOXC1, RBM39, ESRP2, NUP107, WDR43, NHEJ1, CLOCK, THOC1, REV3L, CLUAP1, POLR2F, USP8, POLR2E, MFSD8, ZBTB10, POLR2K, ZBTB11, BDP1, PPP6R3, SF3B6, FCF1, STAT6, SUMO2, SUMO1, NR1D2, PPP3CB, WDR12, GATAD2B, DHX16, AP3D1, RBM25, ETV4, CAPN7, PDS5B, UPF1, PPHLN1, ANKHD1, HNRNPDL, POLR3E, IWS1, SDHB, PRELID1, COG5, RPS6KA4, PSMD13, CHML, YAF2, POLDIP3, GOLPH3, SFPQ, CALM3, PHF5A, RBM14, DUSP7,

RBM14-RBM4, TEX10, NCBP2, PRPF4B, XPO4, RBM4, RPS6KB1, RPS27L, CBX8, TCEAL1, DDX23, RGN, SRRM1, DDX21, PUM3, DNAJC2, ORC2, SPATA24, SCAMP2, MAGOH, SECISBP2, RRP8, RNASEH2A, TATDN1, GRHL2, RUBCN, CARF, NVL, NABP2, TRIM33, TIAL1, MGA, SNRPC, DNTTIP1, SNRPE, SNRPG, HIST1H4L, MPLKIP, EID3, BLM, MAPKAPK5, TFE3, COPS7A, SOX4, ANAPC10, ANAPC11, RIOK1, CCNG1, PSMA7, NR2C2, NR2C1, ZC3H8, FBXW7, DDX47, DOCK1, UBE2D2, NIPBL, ZNF326, NPM1, THAP11, HIST2H3A, TAF1, HIST1H3J, CSTF3, KAT7, SETDB2, TSR1, ZNF830, FANK1, GOLIM4, MUL1, WRN, FAM208B, RBMX, AK9, SUV39H2, TRNT1, MSL2, PSMC6, PHF2, HDAC2, PSMC4, MSL1, HIST1H3B, HIST1H3F, HDAC9, HNRNPH1, NELFE, HDAC8, DNAJB6, SMC1B, UBE2E1, BMI1, E2F4, RSF1, APLF, YLPM1, PHC3, DCAF13, MAX, GPKOW, PCBP1, CDK12, PSMD2, PSMD4, POU4F1, CLINT1, IPMK, NDUFS2, AKT3, PSMD8, CDK13, KHDRBS1, REV1, MPP5, RUNX1T1, PKN2, STXBP4, UBN2, LPIN1, UBE2B, CCDC51, PPM1G, RIF1, NCOA3, HIPK1, BPTF, CPSF6, KPNA5, MCC, MDM4, JMJD1C, MATR3, C1D, KMT2E, NDUFB4, BCLAF1, KMT2A, PPP1R12B, TRA2B, KMT2C, RAG1, PPM1A, RPS15A, NFYB, STUB1, SHQ1, PSMF1, CHD9, ERCC8, HRH1, CHD1L, TRDMT1, ADAT2, CENPC, ECD, NFAT5, KDM3A, CHD6, TINF2, ERCC4, TNRC6A, APC, RTCB, NUP153, VHL, CENPQ, CREB1, PTPA, SMC5, SIRT6, SIRT1, SMC4, ATXN2, PPP1R9B, ATXN3, MED30, ATXN7, AKR1B1, LSM10, SETD9, ID3, SH3D19, MIS18BP1, SETD2, CENPX, VPS25

GOTERM_MF_DIRECT GO:0044822~poly(A) RNA binding

171 0.066117 2.56E-13

NCBP2, NAF1, RPL17, MRPL42, FASTKD1, PRPF4B, LSM6, EIF5, RBM4, NAA15, RPS27L, ZNF638, APOBEC3C, MRPS30,

SMNDC1, CNOT4, WDR75, DDX23, U2AF1, SRRM1, TFB2M, MRPL37, LSM4, PUM3, DHX36, DDX21, PTBP2, DDX10, PUM2, DNAJC2, FNDC3A, RC3H1, LUC7L3, CCAR1, CLNS1A, KRR1, RPL35A, GTPBP4, TWF2, BST2, MAGOH, SECISBP2, YTHDF2, RRP8, MYH9, NVL, TIAL1, DNTTIP2, SNRPC, TFB1M, XRN1, GIGYF2, SNRPG, FUS, TDRD3, HSD17B10, HIST1H4L, SRSF10, MRPS12, DUSP11, PRRC2C, PUS7, ZC3H8, ZFC3H1, PEF1, PFN1, RPS27, DDX47, TCERG1, MACF1, ZNF326, NPM1, SUPV3L1, STRBP, NKRF, CSTF3, S100A16, TSR1, SUB1, SREK1, SMG1, CSRP1, RBMX, HNRNPA1, HNRNPAO, FXR1, SRSF3, APEH, CORO1A, EIF4E, UPF3B, HDAC2, NOLC1, SRSF6, PTCD3, UBA1, PTCD2, SRSF9, DDX50, PPRC1, NELFE, HNRNPH1, ZNF385A, ALG13, YLPM1, UTP15, NAP1L1, RSRC2, BZW1, RBM4B, DCAF13, PCBP1, MAGOHB, PSMD4, WDR33, CDK13, KHDRBS1, ZCCHC3, ZCCHC11, RPGR, EXOSC6, PKN2, RBBP6, KIF1C, TBCA, EIF4A2, EIF4A1, TXN, CPSF6, ESRP2, RBM39, WDR43, MATR3, RBM34, BCLAF1, KMT2C, TRA2B, RPS15A, SF3B6, FCF1, STAU2, SUMO2, SUMO1, CCDC124, DHX15, DHX16, AGO3, TNRC6B, TNRC6A, RBM25, PLEC, DUS3L, RTCB, RBM26, ERH, UPF1, PPHLN1, MEX3B, MEX3A, ANKHD1, HNRNPDL, ATXN2, MRPL28, RPL22, SFPQ, POLDIP3, MEX3C, PHF5A, RBM14, RBM14-RBM4, GOLGB1

GOTERM_MF_DIRECT GO:0005515~protein binding

860 0.332518 6.67E-08

AURKAIP1, MED23, SPRTN, MED21, SHKBP1, USP53, SH3YL1, MAP3K4, MED29, PIK3C3, ILK, DHX36, STAG1, CCAR1, BRAF, PCBD2, LIG3, MED11, MYH9, MED10, PPP1CA, UNC13D, MED17, MAPK8, MCTS1, HSD17B10, HACL1, MOB4, KIAA1109, PPP2R3A, MTX2, GSTCD, CNTRL, ARFGEF1, TMEM128, ARIH1, PFN1, UBASH3B, KBTBD6, FAIM, ZNF124,

SPPL3, FRA10AC1, PAIP1, PIBF1, ATR, FNIP1, SRSF3, HSPB11, DUSP26, NOLC1, SRSF6, FAM214A, SRSF9, TSGA10, SMURF2, BCKDK, ELF2, AP2S1, TAF1D, RNF185, DAXX, ZNF350, ZNF148, TICAM1, USP12, SNAP47, GFOD1, TARSL2, USP13, ATF7IP, NDUFB10, SLC3A1, WAS, TTF2, DOK2, PAPD4, EIF4A2, EIF4A1, TXN, FOXC1, NUP107, THOC1, EXOC8, TRIM13, TRIM16, TRIM15, TAC01, PPP3CB, DHX15, DHX16, USP37, EXOC6, ZNF750, MTMR6, USP34, MTMR7, BRMS1L, ABCA12, ZNF564, PDK1, UPF1, PPHLN1, ANKHD1, TRIM23, APPL2, TRIM21, ZNF165, SDHA, SDHB, CNTF, GSK3A, KXD1, POLDIP3, SFPQ, GSK3B, RAB22A, POLDIP2, LRP6, DUSP7, NCBP2, PRPF4B, ENAM, RPS27L, TXLNB, TGFB1, CHIC2, NUDCD2, UBXN2A, IL15RA, MTUS2, SPATA24, RPL35A, BST2, FADD, YTHDF2, RUBCN, BICD1, MIB1, MGA, RNF138, DNTTIP1, SSC5D, HIST1H4L, MAPKAPK5, UBE2V1, NOSTRIN, PTRH2, RABGGTB, NR2C2, NR2C1, FBXW7, FBXW5, CERS2, ZNF326, PPIL3, SLC35F6, AP2M1, HIST1H3J, SHPRH, MEA1, ACMSD, HACE1, SPRYD7, APEH, HDAC2, ST8SIA5, HIST1H3B, TBXA2R, DNAJB2, HIST1H3F, HDAC9, HDAC8, DNAJB6, NDUF4F4, E2F4, RSF1, APLF, NDUF4F8, ATL2, MIGA1, THADA, MAX, SLC1A2, VPS16, C17ORF62, PKN2, STXBP4, GAL, PMM2, PMM1, KIF1C, TBCA, FHOD3, MCC, JMJD1C, EPN1, FKBP7, PHLPP2, GDAP2, SNX17, GPSM3, RAG1, UPP2, EGLN1, STUB1, SHQ1, ECD, SELPLG, SNX20, CEP192, PTPA, C4BPB, UBE2Q1, MEMO1, ICK, RNF115, MED30, ID3, VPS25, FAM110A, DYNC2LI1, RAB1B, CCT2, SLC35A3, G2E3, GBF1, CEP290, VPS13A, RAB26, NSMAF, RAB21, GTPBP4, PRAME, EMX1, DCTN2, CD37, VEGFD, BTF3L4, CD33, UBR5, MLLT10,

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 receptor activity

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GOTERM_MF_DIRECT GO:0003676~nucleic acid binding

124 0.047944 1.99E-05

KAT6A, ZMAT1, HLF, ZNF292, HNF1B, PPARD, ERCC6L2, TAF1D, CCNT1, ZNF674, ZNF518A, ZNF350, BLZF1, ZNF738, ZNF493, ZBTB20, ZNF33A, SNAPC3, MBD5, TTF2, ZBTB25, ASH1L, FOXC1, NHEJ1, CLOCK, REV3L, THOC1, POLR2F, LCORL, POLR2E, POLR2K, ZBTB10, SCML2, BDP1, TRIM16, ZNF780B, ZNF654, ZNF780A, STAT6, ZNF286A, BAZ2B, ZNF286B, MYSM1, ZNF267, UPF1, PDS5B, ZNF26, HNRNPD, IWS1, TRIM21, PREB, POLDIP2, ZNF761, PHF5A, ZNF573, MIER2, SRRM1, PUM3, ZNF445, DNAJC2, PMS1, SPATA24, ZNF577, CARF, ZNF2, HHEX, ZNF439, TRIM33, MGA, DNTTIP1, TFB1M, XRN1, ZFAND6, TSHZ2, HIST1H4L, BLM, TFAP4, CERS6, NOSTRIN, NR2C2, NR2C1, CERS2, ZNF326, NPM1, STRBP, THAP11, ZMYM2, SETDB2, SHPRH, RFX4, RFX7, WRN, HIVEP1, RFX3, DNAJB6, SMC1B, ZNF410, ZNF84, E2F4, DEDD, ZKSCAN3, CRX, PHC3, MCM9, POU5F2, ZNF407, POLG2, ALX4, FOSL1, KHDRBS1, ZNF280C, ZNF280D, ZNF91, RUNX1T1, HIPK1, C1D, ZNF808, BCLAF1, APEX2, KMT2A, KMT2C, RAG1, AKAP9, NFYB, PAXBP1, CHD9, CENPC, CHD6, ERCC4, TINF2, ZNF605, INSM2, NUP153, CREB3, CREB1, ZBED2, ADNP2, ZBED3, MIS18BP1, CENPX, RBM4, ZNF639, ZXDB, ZNF250, ZNF782, ZNF638, ZNF254, DDX23, DHX36, PTBP2, ZNF445, ZNF577, ZNF43, ZNF100, ZNF644, ZNF2, ZNF233, ZNF439, ZNF236, ZNF235, ZNF789, NABP2, TIAL1, ZNF383, SCAF8, XRN1, ZNF41, FUS, ZNF430, SRSF10, ZNF131, DDX47, ZNF227, NPM1, ZNF124, ZBTB49, NKRF, AEBP2, ZNF624, SREK1, ZNF830, ZNF66, ZBTB41, WRN, RBMX, HNRNPA1, SRSF3, ZNF217, SRSF9, ZNF213, PPRC1, BCL6B, GPATCH2, HIVEP1, NELFE, HNRNPH1, ZNF385A, ZNF410, ZNF84, ZNF292, ZNF296,

				TMEM161B, ZNF674, ZNF518A, GLI2, RBM4B, ZNF350, GPKOW, ZNF738, ZNF148, ZNF724, ZNF407, SYNJ2, ZNF720, TSEN2, ZNF493, ZCCHC4, ZNF33A, ZBTB20, ZCCHC11, ZNF92, ZNF91, RBBP6, TTF2, ZNF138, EIF4A2, PABPN1L, EIF4A1, CPSF6, ZNF713, RBM39, ESRP2, MATR3, ZNF808, RBM34, ZBTB10, SCAPER, TRA2B, ZBTB11, TRIM16, ZNF780B, ZNF780A, CHD1L, ZNF852, ZNF708, DHX16, ZNF286A, ZNF562, RBM25, RBM26, ZNF267, ZNF264, ZNF26, HNRNPDL, ZNF165, ZSCAN30, POLDIP3, SFPQ, RBAK, ZNF761, ZRANB3, RBM14, RBM14-RBM4, ZNF573	
GOTERM_MF_DIRECT	GO:0008270~zinc ion binding	142	0.054904	2.88E-05	RBM4, PDLIM3, ADH1A, ZNF638, APOBEC3C, CNOT4, G2E3, RGN, RARB, RC3H1, RNF32, RXRA, LIG3, UBR1, ZNF2, RNF130, MIB1, UHRF2, TRIM33, UBR5, MLLT10, RNF25, RNF138, ZZZ3, PIAS2, SNRPC, ZFAND6, FUS, SIVA1, ANAPC11, NR2C2, RABGGTB, NR2C1, ARIH1, RPS27, LHX4, ADAM30, TNKS, RCHY1, SLC30A8, THAP11, LHX9, PGGT1B, KAT7, ZMYM2, SHPRH, SETDB2, LPP, ZNF830, ACMSD, MUL1, RNF212B, CSRP1, TET1, SUV39H2, MSL2, PHF3, PHF2, TRIM59, KAT6B, ZNF385A, KAT6A, ZMAT1, BMI1, ZNF84, PPARD, UQCRC1, RSF1, GLRA1, RNPEPL1, RNF185, MMP28, RLIM, GLI2, PHC3, RBM4B, MBTD1, RSPRY1, SETMAR, ZNF407, NEURL1B, RANBP2, USP16, USP13, ZCCHC4, ZCCHC3, ZCCHC11, ZDHHC5, MICAL2, ZNF92, ZNF91, RBBP6, TTF2, BPTF, ASH1L, MDM4, PMPCA, MATR3, CDRT1, ABLIM1, KMT2E, APEX2, KMT2A, POLR2K, SCAPER, USP5, KMT2C, FHL1, RAG1, TRIM13, ADH6, TRIM16, EEA1, TRIM15, MYCBP2, RNF125, ZDHHC21, NR1D2, ADH4, PIKFYVE, ADAT2, DTNB, GATAD2B, BAZ2B, NUP153, UPF1,

GOTERM_CC_DIRECT GO:0005737~cytoplasm

529 0.204537 3.17E-05

MEX3B, RBM20, MEX3A, SIRT6, TRIM23, TRIM21, SIRT2, C9ORF3, RNF43, RNF115, PHF14, YAF2, RBAK, MEX3C, SMPD1, ZRANB3

NAF1, NAA15, ZNF638, HIST1H2BM, MAP3K4, HIST1H2BN, ILK, PLS1, DHX36, MAP2K5, KRR1, ARC, BRAF, EFCAB13, NAA25, NME9, PCM1, MYH9, PPP1CA, UBL4A, FLII, ZNF383, MCTS1, IRAK1BP1, DNAH11, CRT3, HSD17B10, RALGPS2, MOB4, GNAI2, GNAI1, GSTCD, UBA6, UBA5, CNTRL, DTD2, ARFGEF1, NAA35, TP53TG5, PFN1, ARIH1, RAC2, NAA30, HEXIM1, UBASH3B, FAIM, RCHY1, CCDC89, IQSEC1, PAIP1, CCDC81, EPM2A, FNIP1, FXR1, UPF3A, SRSF3, UPF3B, DUSP26, NOLC1, UBA1, MLYCD, TSGA10, SMURF2, MUC5AC, ZNF385A, ELF2, TTC25, MARCKSL1, UBE2G1, RNPEPL1, LRRC19, LRRC18, MMP28, PMVK, RLIM, DAXX, CFAP36, DYNLL1, EPG5, USP16, WDR35, TARSL2, SERTAD2, ATF7IP, ZDHHC5, FBXL20, TTC37, RFTN2, RFTN1, TTF2, SMN1, EPB41L2, MAST4, BRWD1, CCND3, EIF4A1, TXN, PFDN4, FOXC1, USP24, CLOCK, THOC1, EXOC8, FHL1, TRIM13, TRIM16, EEA1, KIAA1147, BBIP1, MMACHC, PLEKHG6, DHX15, DHX16, MTMR6, RASA1, ABCA12, PPP1R18, CAPN7, UPF1, PPHLN1, ANKHD1, CAPN2, APPL2, TTC17, TRIM21, RAB40AL, CAPN1, MPHOSPH9, RPS6KA4, CNTF, RPL22, GSK3B, POLDIP3, SFPQ, HTR2B, KATNAL2, NCBP2, ASPN, METTL21A, IL16, GNPDA2, XPO4, EIF5, RBM4, STYX, RPS6KB1, TXLNB, TGFB1, BATF, NUDCD2, LIX1L, RGN, PUM2, DNAJC2, ASPM, MTUS2, SPATA24, TWF2, BST2, MYO3B, FADD, YTHDF2, RNASEH2A, RUBCN, MIB1, EVC2, HHEX, RNF130, NABP2, MGA, XRN1, SSC5D, TNFAIP1, STK16, MPLKIP, EID3, MAPKAPK5, TFE3, TFEB, UBE2V1,

LRIG2, MROH2B, CCNG2, SESN1, FBXW7, DOCK1, OAZ1, FBXW5, SMG6, MEA1, SELENOW, SMG1, FAM208B, TRADD, NMT1, APEH, HDAC2, HDAC9, HNRNPH1, HDAC8, KIF27, DEDD, COA1, YLPM1, ZKSCAN3, DCAF13, MAX, ZFYVE19, PEX1, VPS16, NRG1, DLG1, DENND6A, ANKS1B, METTL8, SARS, PKN2, NEK10, STXBP4, LPIN1, PMM2, PMM1, VASP, PPM1G, RIF1, NCOA3, TBCA, IPO4, MCC, HORMAD1, EPN1, ABLIM1, KMT2E, BCLAF1, PHLPP2, KMT2A, SNX17, GPSM3, UPP2, RPS15A, EGLN1, TYW5, STUB1, SHQ1, NGLY1, CHD9, HRH1, CHD1L, CCDC125, WDPCP, INPP5J, UFM1, CCDC124, TRDMT1, ECD, ODF3, KDM3A, RTCB, CREB3, CEP192, FLT4, PTPA, NF1, DPYSL2, ACTL9, C9ORF3, SMC4, PPP1R9B, INVS, AKR1B1, ID3, VPS25, FAM110A, CYP3A4, ITGB3BP, RAB3GAP2, PDLIM3, CCT2, ATCAY, G2E3, VPS13C, RAB28, CEP290, RARB, NSMAF, CLNS1A, TXNL1, CEP295, CAPNS2, GTPBP4, EMX1, UBR1, RIC8B, DCTN2, PCF11, CEP162, CD34, UBR5, MLLT10, AAMDC, LRCH3, FBXL2, SIVA1, TDRD3, SRSF10, CRIPT, ASB14, TADA1, ANGEL2, CAPZB, AKAP14, TRMT44, MACF1, DNAAF2, CEP170, STX17, MDFI, ZBTB49, UAP1, S100A16, PTPN18, OSBPL9, TRPC5, TP53BP1, NOTCH2NL, SMYD3, SMAD4, ALMS1, EHBP1, SMAD2, HNRNPA1, PPA2, CSPP1, DESI1, NUP62, DMTF1, MLX, TCF12, MTRNR2L7, SCHIP1, MTRNR2L6, MTRNR2L5, MTRNR2L12, MTRNR2L13, MTRNR2L3, MTRNR2L10, MTRNR2L11, VPS37A, UTP15, TTLL5, TTLL6, KCNIP4, MTFR1, GPX2, GPX1, BLZF1, BAG6, NSMCE3, FAM129B, TSEN2, COX17, GOLGA4, LRRC37B, ZCCHC11, INPPL1, HERC3, ZBTB25, G6PD, ASH1L, MTAP, CRYBA1, MAP3K11, USP8, SCAPER, ABCD1, BDP1, PPP6R3, STAT6, GALK2,

					SUMO1, RB1CC1, DTNB, AGO3, CC2D1A, KIF21A, TPRKB, RBM25, PLEC, IPO13, HNRNPDL, EIF2B1, YWHAH, C4ORF46, MRPL28, PPP1R7, CHML, YAF2, MEX3C, CALM3, RBM14, RBM14-RBM4, TOB2, TEX10, TSPO, NIT2, APOBEC3C, SMNDC1, TRIM16L, WNT4, SOCS2, SNRPN, LYPLA2, RRP8, KIAA0753, CDKL2, RALGAPA1, TIAL1, ERC1, DST, ZFAND6, TNFAIP8L2, BLM, COPS7A, SOX4, RRAGA, MAP4K1, SNX3, PSMA7, PEF1, NPM1, SBK2, HECTD3, STRBP, THAP11, TBC1D32, HECTD1, ZMYM2, KAT7, LPP, TTC21B, ZNF830, SACS, FANK1, RPGRIPL, MUL1, WRN, AK9, SNURF, C8ORF37, CORO1C, CORO1A, EIF4E, PHF2, PLCG1, NXN, PSMC4, KCTD17, GLMN, WDR1, SMC1B, DNAL4, BMI1, PRX, METAP1, TLN1, HPS1, FAM185A, SPICE1, CCDC38, BZW1, ACTR1A, TPP2, PCBP1, KLHL24, PSMD4, CSK, FTSJ1, MDN1, AKT3, CDK13, TTC23L, IRAK1, ELP2, RUNX1T1, PRKCI, MPP5, MINK1, EML6, UBE2B, C6ORF89, NRIP2, RTTN, PANK4, BPTF, HIPK1, KRIT1, PABPN1L, CFL1, CEMIP, KPNA5, NKIRAS1, COMMD6, C1D, DNAH9, PPP1R12B, PPP1R12C, DNAH3, UBE3D, DNAH7, PBLD, DNAH6, TUBGCP3, ROPN1B, CENPC, NFAT5, PTS, APC, INSM2, NUP153, SIRT6, ANKAR, SIRT1, SIRT2, ATXN2, RGS20, ATXN3, IRF5, ATXN7, URI1
GOTERM_BP_DIRECT	GO:0006406~mRNA export from nucleus	23	0.008893	5.33E-05	NCBP2, NUP153, UPF1, SMG6, SRSF10, MAGOH, SMG1, NUP155, SRSF3, HHEX, UPF3B, EIF4E, NUP62, SRSF6, SEH1L, POLDIP3, SRSF9, U2AF1, SRRM1, NUP107, RANBP2, NUP35, THOC1
GOTERM_BP_DIRECT	GO:0008380~RNA splicing	32	0.012373	5.55E-05	NCBP2, PRPF4B, LSM6, RBM4, ZNF638, RBM4B, DDX47, DDX23, ZNF326, ECD, U2AF1, CDK12, DHX15, DHX16, MAGOHB, LSM4, SRRM1, LUC7L3, RBM25, SNRPN, SREK1,

					RBM20, SNURF, IWS1, TTF2, PPP1R9B, SFPQ, LSM10, RBM39, SCAF8, THOC1, SNRPG
GOTERM_MF_DIRECT	GO:0016874~ligase activity	44	0.017013	7.17E-05	ATG10, ZNF451, RNF185, RAG1, TRIM13, TTLL5, UBE3D, TTLL6, RLIM, STUB1, CNOT4, MYCBP2, RNF125, ARIH1, G2E3, C18ORF25, HECTD3, NEURL1B, RCHY1, RANBP2, HECTD1, SHPRH, LIG3, HACE1, MUL1, BIRC6, HERC3, UBR1, TRIM23, RBBP6, TRIM21, MIB1, MSL2, RNF130, RNF43, RNF115, UHRF2, TRIM33, UBR5, RNF25, MEX3C, RNF138, SMURF2, PIAS2
GOTERM_BP_DIRECT	GO:0042384~cilium assembly	26	0.010053	7.90E-05	ABLIM1, IQCB1, CLUAP1, KIF27, DYNC2LI1, C50RF42, BBIP1, WDPCP, TTC30B, CEP290, WDR35, SCLT1, CEP295, CEP83, RPGR, RFX4, RPGRIP1L, AHI1, ALMS1, PCM1, ICK, CEP162, TRIM59, CC2D2A, RFX3, IFT74
GOTERM_BP_DIRECT	GO:0016925~protein sumoylation	25	0.009666	8.19E-05	BMI1, NUP153, EID3, BLM, TP53BP1, MITF, ZNF451, SMC5, MUL1, RNF212B, WRN, CBX8, SENP5, NUP155, PHC3, SUMO2, SUMO1, NUP62, SEH1L, NSMCE3, PIAS2, NUP107, RANBP2, NUP35, STAG1
GOTERM_BP_DIRECT	GO:0016567~protein ubiquitination	55	0.021266	8.62E-05	RLIM, MED21, KLHL3, DCAF13, G2E3, NEURL1B, KLHL24, RC3H1, DCAF16, SOCS2, MED11, UBR1, UBE2B, MED10, ASB9, MIB1, RNF130, UHRF2, TRIM33, KLHL15, MED8, MED17, RNF25, RNF138, MDM4, TNFAIP1, FBXL2, UBA6, UBE3D, ASB14, ANAPC11, STUB1, MYCBP2, ARIH1, FBXW7, UBE2D2, FBXW5, KBTBD6, RCHY1, VHL, HACE1, MUL1, BIRC6, TRIM23, UBE2Q1, SIRT1, TRIM21, RAB40AL, MSL2, RNF43, MED30, UBA1, NEUROD2, KLHL34, UBE2E1
GOTERM_BP_DIRECT	GO:0006355~regulation of transcription, DNA-templated	176	0.06805	8.83E-05	ITGB3BP, IL16, ZNF782, ZNF250, ZXDB, MED23, ZNF638, ZNF254, MIER2, MED29, PHTF2, TFB2M, RARB, ZNF445, IFNK, NUP35, CCAR1, ZNF577, SPATA24, ZNF43, ZNF100, ZNF644, EMX1, BARHL1, ZNF2, ZNF37A, ZNF233,

					RALGAPA1, ZNF236, ZNF439, ZNF789, ZNF235, MGA, FLII, ZNF383, ZZZ3, DNTTIP2, TGIF2, DNTTIP1, ERC1, TFB1M, MCTS1, IRAK1BP1, ZNF41, ZNF430, EID3, SRSF10, ZNF131, TFEB, SOX4, UBE2V1, TADA1, NR2C2, NR2C1, ZNF227, EDRF1, LHX4, ZNF124, THAP11, ASXL2, ZNF624, KAT7, RFX4, ZNF66, RFX7, SMAD4, ZBTB41, HACE1, GCFC2, ZNF217, DMTF1, MLX, ZNF213, PNRC1, RFX3, KAT6B, NELFE, ZNF385A, KAT6A, ZNF410, ZNF84, RSF1, TAF1D, YLPM1, MITF, ZNF674, RLIM, DAXX, CRX, BZW1, MAX, ZNF350, MBTD1, POU5F2, DYNLL1, ZNF738, ZNF680, ZNF736, ZNF724, ZNF407, ZNF720, INO80D, ZNF493, USP13, KMT5B, ZNF33A, EMSY, CCNK, SNAPC1, ZNF92, ZNF91, SNAPC3, PKN2, NRIP2, TTF2, ZBTB25, ZNF138, BPTF, HIPK1, NCOA3, ZNF713, FOXC1, JMJD1C, NUP107, RBM39, CLOCK, ZNF808, SBN01, ZBTB10, FRYL, ZBTB11, KMT2C, SCML2, TXLNG, NFYB, TRIM16, ZNF780B, ZNF654, ZNF780A, MYCBP2, CHD9, SUM01, ZNF852, NR1D2, ZNF708, RB1CC1, ZNF286A, BAZ2B, USP34, ZNF562, ZNF605, ZNF286B, ZNF267, INSM2, ZNF264, VHL, PPHLN1, CREB1, AFF4, RGS19, ZNF26, HNRNPDL, ZNF165, PREB, RGS20, ATXN3, ADNP2, RPS6KA4, ZSCAN30, RBAK, ZNF460, ZNF761, SETD2, ZNF573, VPS25, GOLGB1
GOTERM_BP_DIRECT	GO:0001580~detection of chemical stimulus involved in sensory perception of bitter taste	13	0.005026	1.23E-04	TAS2R4, TAS2R3, TAS2R13, TAS2R50, TAS2R39, TAS2R14, TAS2R46, TAS2R19, TAS2R38, TAS2R43, TAS2R31, TAS2R20, TAS2R30
GOTERM_CC_DIRECT	GO:0005694~chromosome	22	0.008506	2.67E-04	PDS5B, SMCHD1, PRPF4B, SETDB2, PPHLN1, ZNF830, SPRTN, ATR, RBBP6, SIRT2, SMC4, RBBP8, PPP1R7, INTS7, CENPB, ASH1L, HORMAD1, PUM3, HORMAD2, SETD2, CLOCK,

GOTERM_MF_DIRECT	GO:0000166~nucleotide binding	51	0.019719	2.73E-04	STAG1 NCBP2, APLF, HINT2, RBM4, ZNF638, CNOT4, PABPC4L, RBM4B, U2AF1, SYNJ2, PTBP2, NUP35, TIAL1, PABPN1L, CPSF6, RBM39, ESRP2, SCAF8, MATR3, REV3L, SLC27A4, FUS, RBM34, SRSF10, TRA2B, SF3B6, TMEM63B, CHD1L, TNRC6B, TNRC6A, RBM25, RBM26, RBM20, SREK1, HNRNPDL, ELAVL4, HNRNPA1, RBMX, HNRNPA0, SRSF3, UPF3A, UPF3B, SRSF6, POLDIP3, SFPQ, SRSF9, PPRC1, HNRNPH1, RBM14, NELFE, RBM14-RBM4
GOTERM_BP_DIRECT	GO:0000398~mRNA splicing, via spliceosome	37	0.014306	2.94E-04	FUS, NCBP2, POLR2F, POLR2E, PRPF4B, SRSF10, POLR2K, LSM6, TRA2B, SF3B6, DDX23, GPKOW, PCBP1, U2AF1, DHX15, PPIL3, LSM4, DHX16, SRRM1, CCAR1, CSTF3, SNRPN, MAGOH, HNRNPA1, RBMX, HNRNPA0, SNURF, SRSF3, PCF11, UPF3B, SRSF6, SRSF9, SNRPC, PHF5A, HNRNPH1, SNRPE, SNRPG
GOTERM_BP_DIRECT	GO:0006974~cellular response to DNA damage stimulus	35	0.013533	3.68E-04	APLF, BLM, RPS27L, SPRTN, BATF, ERCC8, IMMP2L, MCM9, FBXW7, CHD1L, NIPBL, TLK1, TLK2, USP16, APC, TAF1, CCNK, VAV3, SHPRH, TP53BP1, SMC5, ATAD5, STXBPA, ATR, WRN, SIRT1, RBBP6, UBE2B, SPDYA, NABP2, UBA1, UBR5, ZRANB3, MCTS1, ZNF385A
GOTERM_BP_DIRECT	GO:0000209~protein polyubiquitination	32	0.012373	3.84E-04	UBE2V1, PSMA7, RLIM, STUB1, RNF125, PSMF1, ERCC8, ARIH1, FBXW7, UBE2D2, C18ORF25, ZNF738, TPP2, PSMD2, TNKS, PSMD4, PSMD8, TAF1, SHPRH, RBBP6, UBE2B, TRIM21, PSMC6, RNF115, PSMD13, PSMC4, UBR5, FBXL4, RNF138, SMURF2, ASB2, UBE2E1
GOTERM_MF_DIRECT	GO:0003723~RNA binding	72	0.027839	3.84E-04	ZMAT1, NCBP2, NAF1, LSM6, COA1, RBM4, ZNF638, RLIM, CNOT4, PABPC4L, PCBP1, U2AF1, SYNJ2, DDX10, PUM2, RANBP2, PTBP2, TARSL2, KHDRBS1, SNRPN, SARS, YTHDF2, RNASEH2A, SMN1, TARBP1, UBR5, TIAL1, PABPN1L, CPSF6,

					RBM39, SCAF8, SNRPE, C1D, THOC1, SNRPG, FUS, SRSF10, PUSL1, PUS10, RPS15A, DUSP11, PUS7, TRDMT1, NPM1, SUPV3L1, STRBP, DDX43, RBM26, CSTF3, UPF1, PAIP1, RBM20, ANKHD1, ELAVL4, HNRNPA1, RBMX, SNURF, HNRNPA0, TRIM21, FXR1, TRNT1, SRSF3, UPF3A, ATXN2, RPL22, SRSF6, MEX3C, DDX50, HNRNPH1, RBM14, NELFE, RBM14-RBM4
GOTERM_BP_DIRECT	GO:0006369~termination of RNA polymerase II transcription	16	0.006186	3.87E-04	NCBP2, CSTF3, MAGOH, TTF2, SRSF3, PCF11, UPF3B, SRSF6, SRSF9, POLDIP3, U2AF1, SRRM1, LSM10, SNRPE, THOC1, SNRPG
GOTERM_MF_DIRECT	GO:0004842~ubiquitin-protein transferase activity	47	0.018172	8.51E-04	UBE2G1, RAG1, TRIM13, ASB14, ANAPC11, RLIM, STUB1, KLHL3, CNOT4, ERCC8, ARIH1, G2E3, FBXW7, UBE2D2, ZNF738, KBTBD6, KLHL28, HECTD3, KLHL24, RCHY1, HECTD1, SHPRH, VHL, HACE1, MUL1, BIRC6, HERC3, TRIM23, RBBP6, UBE2B, TRIM21, MIB1, RNF43, RNF130, UHRF2, RNF115, TRIM33, UBA1, UBR5, KLHL15, RNF25, FBXL4, SMURF2, KLHL34, TNFAIP1, UBE2E1, FBXL2
GOTERM_BP_DIRECT	GO:0006405~RNA export from nucleus	14	0.005413	8.55E-04	NCBP2, MAGOH, NUP155, HNRNPA1, SRSF3, UPF3B, EIF4E, NUP62, SRSF6, SRSF9, POLDIP3, U2AF1, SRRM1, THOC1
GOTERM_CC_DIRECT	GO:0005829~cytosol	339	0.131074	8.91E-04	ITGB3BP, RPL17, LSM6, DYNC2LI1, CCT2, WDR73, GBF1, VPS13C, AQP11, PIK3C3, ILK, LSM4, CEP290, RAPGEF4, VPS13A, DHX36, NSMAF, RAPGEF1, DDAH1, MAP2K5, STAG1, CLNS1A, CAPNS2, CAPNS1, BRAF, UBR1, RIC8B, PCMI, MYH9, GCC2, DCTN2, PPP1CA, CEP162, CC2D2A, UBL4A, FBXL4, MAPK8, IQCB1, MOB4, GNAI2, SRSF10, RBP2, RABEPK, UBA6, UBA5, CNTRL, ARFGEF1, CAPZB, MYO9A, ARIH1, PFN1, RPS27, TPI1, RAC2, STX17, TNKS, UAP1, S100A16, PAIP1, EPM2A, SMAD4, ALMS1, SMAD2, DENND1B, UPF3A, UPF3B, UBA1, SMURF2, GOSR1, IDI2, PHKB,

GNPNAT1, AP2S1, PMVK, RLIM, GLI2, DAXX, ARL2BP, KCNIP4, GPX2, GPX1, BAG6, DYNLL1, DYNLL2, SEHL1, GADL1, MCCC1, TICAM1, SYNJ2, FAM129B, GOLGA4, EXOSC6, INPPL1, PDE10A, RBBP6, WAS, SMN1, DOK2, G6PD, GNB2, PAPD4, EIF4A2, EIF4A1, TXN, PFDN4, GRIP2, MTAP, RASSF10, NUP107, TPH1, BCAT1, ATG10, POLR2F, USP8, POLR2E, EXOC8, POLR2K, FHL1, ABCD1, TXLNG, HK1, PPP6R3, EEA1, STAT6, CBR1, BBIP1, MMACHC, RB1CC1, PPP3CB, WIPF3, EXOC6, AGO3, MTMR6, USP34, MTMR7, TPRKB, RASA1, RANBP3L, PLEC, ABCA12, UPF1, PDS5B, VTA1, RICTOR, CAPN2, EIF2B1, TRIM21, POLR3E, CAPN1, COG5, YWHAH, PSMD13, CHML, GSK3A, RPL22, FYN, AP2A1, GSK3B, POLDIP3, GOLPH3, CALM3, DUSP7, CARNMT1, NCBP2, IL16, GNPDA2, EIF5, STYX, PDE3B, RPS6KB1, ADH1A, TTN, KLHL3, CNOT4, PTGIR, UBXN2A, TIAM2, RGN, PHOSPHO1, SRRM1, ITPK1, DNAJC2, FNDC3A, RPL35A, CEP83, SOCS2, NCALD, MAGOH, YTHDF2, FADD, ACTN3, BICD1, MIB1, ARPC1B, RENBP, RNF25, AKAP5, SNRPE, XRN1, DST, SRXN1, SEC61G, SNRPG, MAPKAPK5, SNX8, RRAGA, UBE2V1, ANAPC10, SNX3, ANAPC11, RIOK1, PSMA7, PTRH2, SESN1, FBXW7, DOCK1, PDE6D, UBE2D2, OAZ1, BLOC1S3, NPM1, BLOC1S1, RHOTB1, AP2M1, ZMYM2, VAV3, SMG6, TSR1, ACMSD, RPGRIP1L, BMX, SMG1, SUGT1, AK9, TRADD, DNAJB8, NMT1, APEH, CORO1A, PSMC6, EIF4E, PLCG1, NXN, PSMC4, GLS, DNAJB2, WDR1, HDAC8, DNAJB6, UBE2E1, METAP1, TLN1, CLTA, APLF, DPH5, ARHGAP15, MKLN1, PLCB4, PEX1, TPP2, ACTR1A, PSMD2, ACOT13, PDE8B, PSMD4, RANBP2, CSK, CLINT1, FOSL1, PSMD8, DLG1, KHDRBS1, IRAK1, SARS, PKN2, PRKCI, MINK1,

					LPIN1, PMM2, PMM1, VASP, ARHGAP30, ARHGAP31, KPNA5, PHLPP2, PPP1R12B, SNX17, PPM1A, DCK, RPS15A, UPP2, ADH6, EGLN1, AKAP9, PAXBP1, STUB1, FAM13B, SHQ1, NGLY1, N4BP2, TUBGCP3, PSMF1, RASGRP4, INPP5J, ADH4, PIKFYVE, CENPC, PTS, TNRC6B, TNRC6A, APC, DUS3L, SCLT1, CREB3, CEP192, VHL, CENPQ, NF1, AHI1, ARHGAP45, DPYSL2, CEP63, UBE2Q1, MEMO1, SIRT2, MON2, USP6NL, SMC4, CASP10, SCFD1, ATXN3, ICK, RNF115, NEB, IRF5, ZBED3, AKR1B1, SH3D19, VPS25
GOTERM_CC_DIRECT	GO:0000781~chromosome, telomeric region	12	0.00464	0.001701	EID3, BLM, RIF1, SMG6, TP53BP1, NSMCE3, SMC5, TNKS, DHX36, ERCC4, TINF2, SIRT2
GOTERM_CC_DIRECT	GO:0035145~exon-exon junction complex	8	0.003093	0.002055	UPF3A, TDRD3, UPF3B, UPF1, SMG6, POLDIP3, MAGOH, MAGOHB
GOTERM_BP_DIRECT	GO:0006376~mRNA splice site selection	7	0.002707	0.002553	SRSF10, SRSF6, SRSF9, PTBP2, LUC7L, RBMX, LUC7L3
GOTERM_CC_DIRECT	GO:0016607~nuclear speck	31	0.011986	0.002752	KMT2E, BCLAF1, SRSF10, YLPM1, RBM4, ZNF638, DUSP11, SPRTN, GLI2, SMNDC1, SUMO1, CDK12, U2AF1, SRRM1, GATAD2B, RCHY1, RBM25, LUC7L3, CDK13, ZNF830, MAGOH, CCNL1, SRSF3, HIPK1, SRSF6, POLDIP3, GPATCH2, PIAS2, PHF5A, RBM39, THOC1
GOTERM_MF_DIRECT	GO:0001104~RNA polymerase II transcription cofactor activity	10	0.003866	0.002975	MED30, TP53BP1, MED8, MED17, PPRC1, MED11, RBM14, MED21, RBM14-RBM4, MED10
GOTERM_BP_DIRECT	GO:0050909~sensory perception of taste	9	0.00348	0.002997	TAS2R13, TAS2R4, TAS2R19, TAS2R46, TAS2R3, TAS2R43, TAS2R31, TAS2R20, TAS2R30
GOTERM_BP_DIRECT	GO:0051865~protein autoubiquitination	12	0.00464	0.003827	ERCC8, UBE2D2, RNF115, UHRF2, RNF185, RAG1, TRIM13, RCHY1, UBE2B, STUB1, TRIM21, CNOT4
GOTERM_BP_DIRECT	GO:0031124~mRNA 3'-end processing	12	0.00464	0.003827	SRSF3, NCBP2, PCF11, CSTF3, UPF3B, SRSF6, POLDIP3, MAGOH, SRSF9, U2AF1, SRRM1, THOC1
GOTERM_BP_DIRECT	GO:0045737~positive regulation	8	0.003093	0.003857	SPDYA, CCNK, CCND3, CCNH, CCNT1, CKS2, CCNL1, FAM58A

	of cyclin-dependent protein serine/threonine kinase activity				
GOTERM_MF_DIRECT	GO:0000978~RNA polymerase II core promoter proximal region sequence-specific DNA binding	47	0.018172	0.003876	ZNF430, E2F4, TFAP4, TFE3, MITF, ZNF639, PAXBP1, GLI2, ZKSCAN3, NR2C1, CRX, BATF, MAX, ZNF148, ZNF680, ZNF736, ZNF708, NFAT5, ZNF724, GATAD2B, CC2D1A, FOSL1, ZNF562, ETV4, AEBP2, ZNF264, ZNF100, RFX4, CREB3, CREB1, ZNF92, ZNF66, GSX1, RFX7, SMAD4, SMAD2, GCFC2, CARF, ZNF138, HHEX, HDAC2, ZNF217, ZNF460, RFX3, ZNF713, TCF12, CLOCK
GOTERM_CC_DIRECT	GO:0015030~Cajal body	12	0.00464	0.004051	ARIH1, ANKS1B, NOLC1, U2AF1, LSM10, SNRPC, ANGEL2, FAM118B, SMN1, ZC3H8, SMNDC1, SHQ1
GOTERM_CC_DIRECT	GO:0097542~ciliary tip	11	0.004253	0.004052	CLUAP1, ICK, HSPB11, DYNLL1, DYNLL2, TTC21B, TTC30B, DYNC2LI1, GLI2, WDR35, IFT74
GOTERM_CC_DIRECT	GO:0005739~mitochondrion	145	0.056064	0.004133	HCCS, MRPS36, TSP0, MRPL42, MRPS34, FASTKD1, CMC1, PSTK, AURKAIP1, NIT2, RAB1B, RPS6KB1, MRPS30, ATCAY, GBF1, CISD3, MRPL37, TFB2M, DDAH1, TXNL1, RPL35A, PCBD2, BRAF, POLG, SECISBP2, LIG3, COX6C, NVL, ASB9, SLC25A32, MRPS18C, SLC25A36, MRPL49, MAPK8, TFB1M, SIVA1, HSD17B10, TXN2, MRPS12, MTX2, SFXN3, SOX4, SDHAF3, PTRH2, TOMM5, STX17, SUPV3L1, SLC35F6, AP2M1, FIBP, SACS, MUL1, UCP1, MRRF, OCIAD1, SPRYD4, NUBPL, TRNT1, NMT1, USMG5, DUSP26, PTC3, UBA1, MLYCD, PTC2, GLS, HIVEP1, NDUFAF4, CYB5R1, BCKDK, ETF1, ERCC6L2, UQCRC1, NDUFAF8, ATP5B, COA1, HINT2, MTFR1, AUH, GPX1, DYNLL1, DYNLL2, MCCC1, FSIP2, ABHD11, ACYP2, ATP5L, ACOT13, RANBP2, POLG2, NDUFS2, COX17, DNAJC19, AC02, COX20, RUNX1T1, COQ9, TRMT61B, IMMP1L, DNAJC27, MFN1, CCDC51, PFDN4, TXN,

					NAIF1, OXNAD1, PMPCA, BCAT1, APOOL, NDUFB4, APEX2, ECH1, ABCD1, RPS15A, HK1, TACO1, MPV17L2, MMACHC, CKMT2, PTS, PDK1, NDUFA4, VHL, DPYSL2, SIRT1, TTC19, CAPN1, RAB40AL, SDHA, SDHB, PRELID1, YWHAH, MRPL28, GSK3A, L2HGDH, FYN, GSK3B, SDHC, GOLPH3, MTFP1, POLDIP2, GK3P, HIBCH, URI1, RDH14
GOTERM_MF_DIRECT	GO:0016887~ATPase activity	28	0.010826	0.00446	DNAH11, DNAH9, RSF1, KIF27, BLM, ABCD1, ATP5B, DNAH7, DNAH6, CHD1L, MACF1, DHX16, ATP5L, KIF21A, MDN1, PMS1, ABCA12, ATF7IP, PTPA, WRN, MYH9, KIF1C, PSMC6, ATP13A1, PSMC4, EIF4A2, DST, ATAD2B
GOTERM_CC_DIRECT	GO:0005685~U1 snRNP	7	0.002707	0.004479	SNRPN, SNRPC, LUC7L, SNRPE, LUC7L3, SNURF, SNRPG
GOTERM_BP_DIRECT	GO:0006281~DNA repair	34	0.013146	0.005697	RAD51B, ERCC6L2, EID3, APEX2, BLM, RPS27L, SPRTN, STUB1, SUMO1, CHD1L, NPM1, NSMCE3, POLG2, ERCC4, INO80D, POLK, EMSY, REV1, PDS5B, UPF1, SHPRH, LIG3, SMG1, WRN, ATR, SIRT1, UBE2B, RBBP8, NABP2, UBR5, ZRANB3, RBM14, CENPX, RBM14-RBM4
GOTERM_CC_DIRECT	GO:0071013~catalytic step 2 spliceosome	17	0.006573	0.005961	PRPF4B, SNRPN, MAGOH, SF3B6, RBMX, HNRNPA1, SNURF, NRDE2, DDX23, U2AF1, SRRM1, PPIL3, MAGOHB, PHF5A, HNRNPH1, SNRPE, SNRPG
GOTERM_MF_DIRECT	GO:0061630~ubiquitin protein ligase activity	28	0.010826	0.005985	UBE2G1, RAG1, UBE2V1, ANAPC11, RLIM, MED21, STUB1, RNF125, ARIH1, C18ORF25, RC3H1, VHL, MED11, UBR1, RBBP6, UBE2B, MED10, RNF43, MSL2, UHRF2, MED30, RNF115, MED17, RNF25, RNF138, SMURF2, MDM4, ASB2
GOTERM_BP_DIRECT	GO:0045053~protein retention in Golgi apparatus	4	0.001547	0.006103	VPS13C, VPS13D, GOLPH3, VPS13A
GOTERM_MF_DIRECT	GO:0030544~Hsp70 protein binding	9	0.00348	0.006127	BAG6, METTL21A, NUP62, CREB1, SACS, DNAJB2, DNAJC2, HDAC8, STUB1
GOTERM_BP_DIRECT	GO:0043984~histone H4-K16 acetylation	7	0.002707	0.006344	MSL2, KAT7, KANSL1, KMT2A, KANSL2, MSL1, KANSL1L

GOTERM_MF_DIRECT	GO:0008527~taste receptor activity	6	0.00232	0.007007	TAS2R13, TAS2R14, TAS2R4, TAS2R3, TAS2R43, TAS1R1
GOTERM_CC_DIRECT	GO:0005730~nucleolus	97	0.037505	0.007153	LSM6, RBM4, WDR75, G2E3, DDX23, DDX21, PUM3, SPATA24, KRR1, GTPBP4, RRP8, CARF, NVL, PPP1CA, ZZZ3, DNNTIP2, DNNTIP1, TNFAIP1, BLM, CRIPT, TXN2, ANAPC11, ARFGEF1, FBXW7, DDX47, TCERG1, NPM1, NKRF, TAF1, KAT7, S100A16, TSR1, SMG6, SUB1, WRN, GCFC2, FXR1, UPF3B, PHF2, NOLC1, SRSF9, DDX50, GPATCH2, ZNF385A, KAT6A, DEDD, CCNT1, HINT2, UTP15, SENP5, DAXX, DCAF13, RBM4B, CDK12, FAM129B, TSEN2, TWISTNB, IPMK, MDN1, WDR33, ZCCHC11, EXOSC6, SNAPC1, RBBP6, C6ORF89, RBBP8, BRWD1, TBCA, WDR43, REV3L, C1D, RBM34, BCLAF1, POLR2F, APEX2, CETN3, FCF1, STAU2, SHQ1, SUMO1, DHX15, WDR12, ZNF750, ETV4, NUP153, NF1, SIRT6, SIRT1, BMT2, C9ORF3, ZBED6, ATXN7, KATNBL1, RBM14, RBM14-RBM4, TEX10, VPS25
GOTERM_BP_DIRECT	GO:0043161~proteasome-mediated ubiquitin-dependent protein catabolic process	30	0.011599	0.007228	TRIM13, ANAPC10, ANAPC11, PSMA7, RLIM, STUB1, PSMF1, ERCC8, FBXW5, C18ORF25, UBXN2A, PSMD2, HECTD3, PSMD4, PSMD8, APC, SIRT1, UBE2B, SIRT2, PSMC6, ATXN3, RNF115, PSMD13, PSMC4, GSK3A, GSK3B, KCTD17, CLOCK, TNFAIP1, UBE2E1
GOTERM_CC_DIRECT	GO:0005681~spliceosomal complex	17	0.006573	0.007356	SNRPN, SREK1, LSM6, HNRNPDL, HNRNPA1, TTF2, SNURF, SMNDC1, ZNF326, U2AF1, LSM4, DHX16, PTBP2, SCAF8, SNRPE, RBM25, SNRPG
GOTERM_BP_DIRECT	GO:0043029~T cell homeostasis	8	0.003093	0.007823	GPR174, CORO1A, PPP3CB, RAG1, FADD, TGFB1, RC3H1, ZC3H8
GOTERM_BP_DIRECT	GO:0010467~gene expression	11	0.004253	0.008519	NCBP2, POLR2F, POLR2E, POLR2K, PCBP1, GOLPH3, HNRNPH1, RBMX, HNRNPA1, HNRNPA0, ZBTB25
GOTERM_BP_DIRECT	GO:0060271~cilium	22	0.008506	0.00874	IQCB1, SCLT1, RPGR, CEP83, KIF27, TTC21B, RPGRIP1L,

	morphogenesis				AHI1, C5ORF42, PCM1, ICK, CEP162, BBIP1, HSPB11, DYNLL1, WDPCP, CC2D2A, CEP290, RFX3, WDR35, TBC1D32, IFT74
GOTERM_BP_DIRECT	GO:0031047~gene silencing by RNA	19	0.007346	0.008884	NCBP2, HIST2H3A, HIST1H3J, HIST1H4L, NUP153, POLR2F, POLR2E, POLR2K, NUP155, NUP62, SEH1L, HIST1H3B, H3F3A, RANBP2, NUP107, TNRC6B, HIST1H3F, NUP35, TNRC6A
GOTERM_CC_DIRECT	GO:0005814~centriole	19	0.007346	0.009317	IQCB1, CEP295, SCLT1, CEP83, CEP192, CETN3, AHI1, ALMS1, CCDC146, PCM1, CEP63, SPICE1, SIRT2, TUBGCP3, MPHOSPH9, SASS6, CEP162, CEP170, CEP290
GOTERM_MF_DIRECT	GO:0004004~ATP-dependent RNA helicase activity	13	0.005026	0.009354	UPF1, DDX47, DDX23, EIF4A2, EIF4A1, DHX15, DDX50, DHX16, DDX21, SUPV3L1, DHX36, DDX10, DDX43
GOTERM_CC_DIRECT	GO:0005801~cis-Golgi network	10	0.003866	0.009363	SCFD1, FKTN, GBF1, UBXN2A, GOLIM4, AKAP9, GOSR1, KDELR1, TRIP11, GOLGB1
GOTERM_CC_DIRECT	GO:0016592~mediator complex	9	0.00348	0.009422	MED30, MED29, MED8, MED17, MED11, RBM14, MED21, RBM14-RBM4, MED10
GOTERM_BP_DIRECT	GO:0090263~positive regulation of canonical Wnt signaling pathway	20	0.007733	0.009428	CAV1, PPP2R3A, SOX4, PSMA7, PSMF1, WNT4, PSMC6, PSMD13, PSMC4, UBR5, ZBED3, ILK, PSMD2, LRP6, SMURF2, PSMD4, TNKS, USP34, ASPM, PSMD8
GOTERM_BP_DIRECT	GO:0032007~negative regulation of TOR signaling	8	0.003093	0.009647	GSK3A, MAPKAPK5, EPM2A, DEPTOR, UBR1, SIRT1, CRYBA1, FNIP1
GOTERM_BP_DIRECT	GO:0007049~cell cycle	31	0.011986	0.010047	APEX2, GNAI2, GNAI1, CCNT1, TXLNG, SENP5, ZFYVE19, CCDC124, RBICC1, TLK1, TLK2, USP16, SPIN2A, CCAR1, TAF1, ERH, PKN2, LIG3, HACE1, ATR, APPL2, TRIM21, SUV39H2, PPP1CA, UHRF2, CCND3, RIF1, NOLC1, DMTF1, TMPRSS11A, MCTS1
GOTERM_MF_DIRECT	GO:0008026~ATP-dependent helicase activity	8	0.003093	0.010396	CHD1L, ERCC6L2, DDX23, BLM, DHX16, DHX36, CHD6, TTF2
GOTERM_BP_DIRECT	GO:0060285~cilium-dependent	5	0.001933	0.012309	CFAP44, DNAAF2, DNAH3, RFX3, DNAH7

	cell motility				
GOTERM_CC_DIRECT	G0:0000151~ubiquitin ligase complex	18	0.00696	0.012655	BMI1, UBE2V1, MED11, ASB14, UBR1, SUGT1, MED21, STUB1, MED10, ARIH1, UBE2D2, DCUN1D2, MED30, MED17, FBXL4, SMURF2, RCHY1, UBE2E1
GOTERM_CC_DIRECT	G0:0071004~U2-type prespliceosome	6	0.00232	0.012989	SNRPN, SNRPC, LUC7L, LUC7L3, SNURF, SNRPG
GOTERM_CC_DIRECT	G0:0022624~proteasome accessory complex	6	0.00232	0.012989	PSMC6, PSMD13, PSMC4, PSMD2, PSMD4, PSMD8
GOTERM_CC_DIRECT	G0:0030532~small nuclear ribonucleoprotein complex	6	0.00232	0.012989	SNRPN, LSM6, SNRPE, ARFGF1, SNURF, SNRPG
GOTERM_MF_DIRECT	G0:0005085~guanyl-nucleotide exchange factor activity	19	0.007346	0.013037	RALGPS2, RPGR, VAV3, LAMTOR2, HPS1, RIC8B, EIF2B1, ARFGF1, FNIP1, PREB, PTGIR, DOCK1, GBF1, TIAM2, RASGRP4, TBXA2R, RAPGEF4, RAPGEF1, MON1A
GOTERM_BP_DIRECT	G0:0010501~RNA secondary structure unwinding	10	0.003866	0.01383	DDX47, DDX23, EIF4A2, EIF4A1, DDX50, DDX21, AGO3, DHX36, DDX10, DDX43
GOTERM_MF_DIRECT	G0:0004386~helicase activity	15	0.0058	0.014261	UPF1, SHPRH, BLM, WRN, MCM9, CHD9, DDX47, DDX23, EIF4A2, EIF4A1, DDX50, SUPV3L1, DHX36, ZRANB3, DDX10
GOTERM_BP_DIRECT	G0:0000183~chromatin silencing at rDNA	9	0.00348	0.014291	HIST2H3A, HIST1H3J, HIST1H4L, HIST1H3B, H3F3A, RRP8, HIST1H3F, SIRT1, SIRT2
GOTERM_BP_DIRECT	G0:0042787~protein ubiquitination involved in ubiquitin-dependent protein catabolic process	23	0.008893	0.016452	TAF1, RNF185, HACE1, UBA6, HERC3, ANAPC10, ANAPC11, RBBP6, KLHL3, STUB1, ARIH1, RNF43, RNF115, C18ORF25, KLHL28, KLHL15, UBR5, HECTD3, SMURF2, ASB2, RCHY1, HECTD1, UBE2E1
GOTERM_MF_DIRECT	G0:0018024~histone-lysine N-methyltransferase activity	9	0.00348	0.017092	KMT2E, SETDB2, KMT2A, KMT2C, SETMAR, SMYD3, SETD2, KMT5B, SUV39H2
GOTERM_BP_DIRECT	G0:0006511~ubiquitin-dependent protein catabolic process	26	0.010053	0.018958	USP8, USP5, UBE2G1, UBA6, RLIM, PSMA7, STUB1, ARIH1, PSMF1, BAG6, UBE2D2, USP12, USP37, PSMD4, USP34, USP16, USP13, UBE2B, ATXN3, PSMC6, PSMD13, UBR5, FBXL4, SMURF2, USP24, UBE2E1

GOTERM_BP_DIRECT	GO:0045815~positive regulation of gene expression, epigenetic	12	0.00464	0.019606	HIST2H3A, HIST1H3J, HIST1H4L, POLR2F, POLR2E, POLR2K, TAF1D, HIST1H3B, H3F3A, DDX21, TWISTNB, HIST1H3F
GOTERM_BP_DIRECT	GO:0022604~regulation of cell morphogenesis	7	0.002707	0.019776	PHIP, ZMYM2, ARC, CFL1, ENAM, SH3D19, CAPZB
GOTERM_BP_DIRECT	GO:0045892~negative regulation of transcription, DNA-templated	59	0.022812	0.020598	PPARD, RSF1, ELF2, ZNF639, RLIM, ZKSCAN3, DAXX, TGFB1, WNT4, ZNF350, ZNF148, FOXF2, NRG1, ATF7IP, KHDRBS1, ZNF280C, PRAME, ZNF280D, ZNF91, RUNX1T1, HHEX, TRIM33, CLOCK, C1D, BCLAF1, TFAP4, NOSTRIN, ZC3H8, ZNF227, SUMO1, NIPBL, HEXIM1, NR1D2, LHX9, MDFI, NKRF, SETDB2, TNFSF4, SMAD4, SMAD2, SIRT6, SIRT1, GCFC2, SIRT2, SUV39H2, ZNF217, HDAC2, ZBED6, YAF2, SFPQ, MLX, RBAK, RFX3, SMURF2, ID3, KAT6B, HDAC9, DNAJB6, KAT6A
GOTERM_MF_DIRECT	GO:0017136~NAD-dependent histone deacetylase activity	3	0.00116	0.021276	SIRT6, SIRT1, SIRT2
GOTERM_MF_DIRECT	GO:0070628~proteasome binding	5	0.001933	0.02136	PSMF1, BAG6, SACS, DNAJB2, USP13
GOTERM_CC_DIRECT	GO:0016363~nuclear matrix	16	0.006186	0.021386	ERCC8, ATXN3, ZNF350, BLM, ZNF326, SFPQ, ATXN7, CFL1, RUNX1T1, SRRM1, PHF5A, SCAF8, TINF2, ARFGEF1, MATR3, THOC1
GOTERM_CC_DIRECT	GO:0044545~NSL complex	3	0.00116	0.021681	KANSL1, KANSL2, KANSL1L
GOTERM_BP_DIRECT	GO:0009083~branched-chain amino acid catabolic process	6	0.00232	0.022254	BCAT1, HSD17B10, BCKDK, MCCC1, HIBCH, AUH
GOTERM_BP_DIRECT	GO:0097676~histone H3-K36 dimethylation	3	0.00116	0.022269	ASH1L, SETMAR, SETD2
GOTERM_MF_DIRECT	GO:0003729~mRNA binding	19	0.007346	0.022511	NCBP2, CSTF3, TRA2B, RBM4, ELAVL4, RBMX, FXR1, PCF11, UPF3B, PCBP1, EIF4A1, CPSF6, PUM3, PTBP2, SNRPC, ESRP2, LUC7L, RBM25, LUC7L3
GOTERM_BP_DIRECT	GO:0030512~negative regulation	12	0.00464	0.024404	ASPN, GLG1, CAV1, ZNF451, CD109, PPM1A, SMAD2,

	of transforming growth factor beta receptor signaling pathway				SMURF2, SIRT1, STUB1, TGFB1, PBLD
GOTERM_BP_DIRECT	GO:0032436~positive regulation of proteasomal ubiquitin-dependent protein catabolic process	12	0.00464	0.024404	RNF125, ARIH1, SUMO2, TAF1, SUMO1, USP5, GSK3B, RNF138, DNAJB2, RCHY1, STUB1, SIRT2
GOTERM_MF_DIRECT	GO:0003700~transcription factor activity, sequence-specific DNA binding	102	0.039438	0.024776	ZNF451, ZNF639, ZNF250, ZNF782, ZNF254, TCEAL1, BATF, FOXF2, ZNF445, ZNF577, ZNF43, RCOR3, RXRA, GRHL2, ZNF37A, ZNF2, CARF, ZNF235, ZNF789, MLLT10, MGA, ZNF383, TGIF2, ZNF41, TFE3, ZNF131, TFEB, SOX4, NR2C2, ZC3H8, NR2C1, ZNF227, KAT7, ZNF624, RFX7, SMAD4, SMAD2, GCFC2, ZNF217, DMTF1, MLX, ZNF213, RFX3, TCF12, HLF, PPARG, HNF1B, E2F4, ELF2, MITF, ZNF518A, ZKSCAN3, GLI2, CRX, MAX, BLZF1, POU5F2, FOSL1, ZNF493, ZNF33A, ZNF92, ZNF91, RUNX1T1, FOXJ3, ZBTB25, ZNF138, FOXC1, CLOCK, ZNF808, KMT2A, SCML2, ZBTB11, NFYB, PAXBP1, ZNF780B, ZNF780A, STAT6, NR1D2, NFAT5, ZNF286A, GATAD2B, KDM3A, ZNF286B, ZNF605, ETV4, ZNF267, ZNF564, CREB3, CREB1, AFB4, ZNF26, ZNF165, ZBED6, IRF5, ZSCAN30, ZNF761, NEUROD2, PHF5A, ID3, PBX2, GOLGB1, ZNF573
GOTERM_BP_DIRECT	GO:0045944~positive regulation of transcription from RNA polymerase II promoter	106	0.040985	0.025358	ZNF639, MED21, TGFB1, BATF, FOXF2, ABRA, DHX36, RARB, STAG1, MAP2K5, BARHL1, RXRA, FADD, GRHL2, MED10, HHEX, MLLT10, AAMDC, MED17, PIAS2, CRT3, STK16, TFAP4, TFE3, TFEB, SOX4, NR2C2, PFN1, NIPBL, TNKS, ZBTB49, ASXL2, TAF1, RFX4, SUB1, TP53BP1, GSK3B, SMAD4, SMYD3, SMAD2, TET1, RBMX, HDAC2, PPRC1, RFX3, KAT6B, NELFE, TCF12, ATAD2B, HLF, HNF1B, ZNF292, E2F4, MITF, CCNT1, GLI2, CRX, ZNF350, ZNF148, PCBP1,

					POU4F1, ALX4, USP16, NRG1, FOSL1, CCNK, CCNH, CCNL1, NCOA7, GAL, LPIN1, NCOA3, ASH1L, FOXC1, CLOCK, IFT74, KMT2A, EGLN1, PAXBP1, PHIP, STAT6, SUMO2, ECD, PPP3CB, NFAT5, KDM3A, ZNF750, MYSM1, ETV4, ZNF564, CREB3, CREB1, AHI1, FAM58A, SIRT1, SIRT2, RPS6KA4, IRF5, ATXN7, GSK3B, ZBED3, LRP6, NEUROD2, RBM14, PBX2, RBM14-RBM4
GOTERM_BP_DIRECT	G0:0045893~positive regulation of transcription, DNA-templated	60	0.023199	0.025673	PPARD, HNF1B, RSF1, ELF2, MITF, NAA15, GLI2, ZKSCAN3, TGFB1, WNT4, ILK, FOXF2, TFB2M, CEP290, USP16, DNAJC2, SERTAD2, ATF7IP, IRAK1, PCBD2, BPTF, NCOA3, MED17, PIAS2, FOXC1, CLOCK, KMT2E, TFAP4, BLM, KMT2A, TFE3, PPM1A, TFEB, SOX4, UBE2V1, NFYB, TRIM16, TASP1, PHIP, NR1D2, NPM1, PPP3CB, KDM3A, CREB3, VHL, TP53BP1, CREB1, SMAD4, SMAD2, YWHAH, MED30, HDAC2, NUP62, YAF2, LRP6, CKS2, RFX3, PHF5A, KAT6B, KAT6A
GOTERM_CC_DIRECT	G0:0005686~U2 snRNP	6	0.00232	0.026132	SNRPN, PHF5A, SF3B6, SNRPE, SNURF, SNRPG
GOTERM_BP_DIRECT	G0:0017015~regulation of transforming growth factor beta receptor signaling pathway	6	0.00232	0.027558	CAV3, TRIM33, SMAD4, SMAD2, SMURF2, TGFB1
GOTERM_BP_DIRECT	G0:0098909~regulation of cardiac muscle cell action potential involved in regulation of contraction	4	0.001547	0.027887	CAV3, CAV1, ATP2A2, AKAP9
GOTERM_BP_DIRECT	G0:0003073~regulation of systemic arterial blood pressure	4	0.001547	0.027887	GSK3A, NCALD, DDAH1, SLC4A5
GOTERM_BP_DIRECT	G0:1901409~positive regulation of phosphorylation of RNA polymerase II C-terminal domain	4	0.001547	0.027887	CCNH, CCNT1, CCNL1, FAM58A

GOTERM_CC_DIRECT	GO:0031965~nuclear membrane	30	0.011599	0.028273	NDUFB4, TSPO, CERS6, TXLNG, SUMO1, CERS2, RB1CC1, CEP170, SHISA5, IL15RA, TNKS, RANBP2, PUM2, NUP35, DNAJC2, GTPBP4, NUP153, IPO13, PCM1, NUP155, LPIN1, KLHDC2, AK9, APEH, NUP62, IPO4, TSGA10, ZNF383, NUP107, TEX10
GOTERM_CC_DIRECT	GO:0030877~beta-catenin destruction complex	5	0.001933	0.028801	RGS20, GSK3A, GSK3B, RGS19, APC
GOTERM_MF_DIRECT	GO:0004198~calcium-dependent cysteine-type endopeptidase activity	6	0.00232	0.030728	PEF1, CAPN7, CAPNS2, CAPNS1, CAPN2, CAPN1
GOTERM_BP_DIRECT	GO:0006310~DNA recombination	14	0.005413	0.030881	RAD51B, APEX2, EID3, BLM, REC114, NSMCE3, LIG3, RAG1, SUPV3L1, WRN, RBM14, INO80D, NHEJ1, RBM14-RBM4
GOTERM_BP_DIRECT	GO:0090305~nucleic acid phosphodiester bond hydrolysis	13	0.005026	0.032099	N4BP2, APEX2, APLF, POLG, SETMAR, RAG1, WRN, ZRANB3, TATDN1, XRN1, RBBP8, DNASE1L1, REV3L
GOTERM_BP_DIRECT	GO:0070932~histone H3 deacetylation	6	0.00232	0.0336	HDAC2, SFPQ, HDAC9, SIRT1, HDAC8, SIRT2
GOTERM_BP_DIRECT	GO:0035307~positive regulation of protein dephosphorylation	6	0.00232	0.0336	SPPL3, PPP1R7, PTPA, SMPD1, CALM3, TGFB1
GOTERM_MF_DIRECT	GO:0042393~histone binding	18	0.00696	0.034513	HIST2H3A, HIST1H3J, HIST1H4L, ELP2, RSF1, RAG1, DAXX, SIRT1, UHRF2, NPM1, CKS2, HIST1H3B, H3F3A, TNKS, HIST1H3F, USP16, DNAJC2, MYSM1
GOTERM_MF_DIRECT	GO:0061631~ubiquitin conjugating enzyme activity	7	0.002707	0.035481	TAF1, UBE2D2, UBE2G1, BIRC6, UBE2Q1, UBE2B, UBE2E1
GOTERM_MF_DIRECT	GO:0016538~cyclin-dependent protein serine/threonine kinase regulator activity	5	0.001933	0.035489	CCNK, CCNH, CCNT1, CCNL1, FAM58A
GOTERM_BP_DIRECT	GO:0010507~negative regulation of autophagy	8	0.003093	0.036609	EIF4E, RASIP1, Rraga, TLK2, ZKSCAN3, HTR2B, SIRT2, RUBCN
GOTERM_MF_DIRECT	GO:0005487~nucleocytoplasmic	6	0.00232	0.037011	UPF3A, NUP153, UPF3B, NUP62, NUP107, NUP35

	transporter activity				
GOTERM_CC_DIRECT	G0:0030286~dynein complex	6	0.00232	0.038386	DNAH11, DNAH9, DYNLL1, DYNLL2, DCTN2, DNAL4
GOTERM_BP_DIRECT	G0:0090244~Wnt signaling pathway involved in somitogenesis	4	0.001547	0.039115	RGS20, PPP2R3A, LRP6, RGS19
GOTERM_BP_DIRECT	G0:1900027~regulation of ruffle assembly	4	0.001547	0.039115	COR01C, SH3YL1, CAV1, WDPCP
GOTERM_BP_DIRECT	G0:0045047~protein targeting to ER	4	0.001547	0.039115	SPCS2, PMM2, PMM1, SEC61G
GOTERM_BP_DIRECT	G0:0032886~regulation of microtubule-based process	4	0.001547	0.039115	MACF1, GSK3B, MEMO1, APC
GOTERM_BP_DIRECT	G0:0050434~positive regulation of viral transcription	7	0.002707	0.039192	PFN1, POLR2F, RSF1, POLR2E, POLR2K, CCNT1, NELFE
GOTERM_BP_DIRECT	G0:0070126~mitochondrial translational termination	14	0.005413	0.039804	MRPL53, MRPS36, MRPL42, MRPS34, AURKAIP1, MRPS12, MRRF, MRPS30, MRPS18C, MRPL28, PTC3, MRPS18A, MRPL49, MRPL37
GOTERM_MF_DIRECT	G0:0000104~succinate dehydrogenase activity	3	0.00116	0.040111	SDHA, SDHB, SDHC
GOTERM_CC_DIRECT	G0:0043219~lateral loop	3	0.00116	0.040851	MPP5, SIRT2, DLG1
GOTERM_CC_DIRECT	G0:0005749~mitochondrial respiratory chain complex II, succinate dehydrogenase complex (ubiquinone)	3	0.00116	0.040851	SDHA, SDHB, SDHC
GOTERM_CC_DIRECT	G0:0005929~cilium	21	0.00812	0.040921	DNAH11, CLUAP1, CAV1, KIF27, TTC21B, DYNC2LI1, RPGRIP1L, AHI1, TTLL5, DNAH7, ARL2BP, EVC2, ICK, HSPB11, INVS, TRIM59, TTC30B, WDR35, TBC1D32, IFT74, DNAL4
GOTERM_BP_DIRECT	G0:1904294~positive regulation of ERAD pathway	3	0.00116	0.041924	ATXN3, BAG6, USP13

GOTERM_BP_DIRECT	GO:0061052~negative regulation of cell growth involved in cardiac muscle cell development	3	0.00116	0.041924	CAV3, G6PD, GSK3A
GOTERM_BP_DIRECT	GO:0051098~regulation of binding	3	0.00116	0.041924	SMAD4, SMAD2, TGFB1
GOTERM_BP_DIRECT	GO:0098534~centriole assembly	3	0.00116	0.041924	E2F4, RBM14, RBM14-RBM4
GOTERM_BP_DIRECT	GO:0006344~maintenance of chromatin silencing	3	0.00116	0.041924	HDAC2, UBE2B, SIRT1
GOTERM_BP_DIRECT	GO:1901657~glycosyl compound metabolic process	3	0.00116	0.041924	KLB, LCTL, LCT
GOTERM_BP_DIRECT	GO:0006627~protein processing involved in protein targeting to mitochondrion	3	0.00116	0.041924	IMMP1L, IMMP2L, PMPCA
GOTERM_MF_DIRECT	GO:0019789~SUMO transferase activity	5	0.001933	0.04416	SUMO2, MUL1, PIAS2, RNF212B, RANBP2
GOTERM_BP_DIRECT	GO:0045773~positive regulation of axon extension	7	0.002707	0.045441	TWF2, MACF1, TRPC5, GSK3B, ILK, NRG1, GOLGA4
GOTERM_CC_DIRECT	GO:0016605~PML body	15	0.0058	0.046321	ZMYM2, BLM, ZNF451, SMC5, TRIM16, ATR, SIRT1, DAXX, NR2C1, SUMO2, MAX, SUMO1, HIPK1, PIAS2, KAT6A
GOTERM_BP_DIRECT	GO:0042073~intraciliary transport	5	0.001933	0.047542	ICK, RPGR, HSPB11, TTC30B, IFT74
GOTERM_BP_DIRECT	GO:0043123~positive regulation of I-kappaB kinase/NF-kappaB signaling	22	0.008506	0.048002	IRAK1, LTBR, BST2, PPM1A, MUL1, UBE2V1, TRIM13, FADD, CANT1, TRADD, CASP10, C18ORF32, NUP62, ATP2C1, FYN, TICAM1, SHISA5, CCDC22, CC2D1A, HTR2B, GPR89A, TMED7-TICAM2
GOTERM_MF_DIRECT	GO:0033558~protein deacetylase activity	4	0.001547	0.049256	HDAC2, HDAC9, SIRT1, SIRT2
KEGG_PATHWAY	hsa04742:Taste transduction	14	0.005413	4.05E-05	TAS2R4, TAS2R3, TAS1R1, TAS2R13, TAS2R39, TAS2R50, TAS2R14, TAS2R46, TAS2R19, TAS2R38, TAS2R43,

KEGG_PATHWAY	hsa03013:RNA transport	31	0.011986	5.15E-05	TAS2R31, TAS2R20, TAS2R30 NCBP2, EIF5, PABPC4L, SUMO2, SUMO1, SEH1L, MAGOHB, SRRM1, RANBP2, NUP35, CLNS1A, NUP153, UPF1, MAGOH, RGPD4, PAIP1, NUP155, EIF2B1, SMN1, FXR1, TRNT1, UPF3A, EIF4E, UPF3B, NUP62, EIF4A2, EIF4A1, NUP107, RPP40, THOC1, NUP210L
KEGG_PATHWAY	hsa03040:Spliceosome	26	0.010053	6.17E-05	NCBP2, SRSF10, LSM6, MAGOH, TRA2B, SF3B6, HNRNPA1, RBMX, SMNDC1, SRSF3, TCERG1, DDX23, SRSF6, PCBP1, SRSF9, U2AF1, DHX15, LSM4, DHX16, MAGOHB, SNRPC, PHF5A, SNRPE, RBM25, THOC1, SNRPG
KEGG_PATHWAY	hsa05016:Huntington's disease	31	0.011986	3.92E-04	DNAH11, NDUFB4, CLTA, DNAH9, POLR2F, POLR2E, UQCRC1, POLR2K, AP2S1, ATP5B, DNAH3, DNAH7, DNAH6, PLCB4, UQCR11, NDUFS2, AP2M1, NDUF44, NDUFB10, CREB3, CREB1, UCP1, COX6C, DCTN2, SDHA, SDHB, HDAC2, AP2A1, SDHC, DNAL1, DNAL4
KEGG_PATHWAY	hsa03015:mRNA surveillance pathway	17	0.006573	0.002625	NCBP2, CSTF3, PPP2R3A, UPF1, SMG6, MAGOH, SMG1, PABPC4L, UPF3A, PCF11, PPP1CA, UPF3B, PABPN1L, SRRM1, CPSF6, MAGOHB, WDR33
KEGG_PATHWAY	hsa00310:Lysine degradation	11	0.004253	0.008503	KMT2E, SETDB2, KMT2A, PLOD1, KMT2C, ASH1L, SETMAR, SETD2, COLGALT1, KMT5B, SUV39H2
KEGG_PATHWAY	hsa04120:Ubiquitin mediated proteolysis	20	0.007733	0.015527	VHL, UBE2G1, UBA6, BIRC6, HERC3, ANAPC10, ANAPC11, STUB1, UBE2B, UBE2Q1, ERCC8, FBXW7, UBE2D2, UBA1, UBR5, RHOBTB1, SMURF2, PIAS2, RCHY1, UBE2E1
KEGG_PATHWAY	hsa00562:Inositol phosphate metabolism	12	0.00464	0.028333	TPI1, PLCB4, PLCG1, INPP5J, INPPL1, PIK3C3, PIKFYVE, SYNJ2, MTMR6, ITPK1, IPMK, MTMR7

Table S4. Survival analysis results of the fourteen prognostic snoRNAs co-expressed genes in AML.

ID	P value	HR	Low 95%	High 95%
PDE3B	3.03E-06	0.316319	0.195113	0.512818
BCKDK	4.93E-06	3.021909	1.880191	4.856916
CENPC	6.98E-06	0.331423	0.20475	0.536464
BATF	9.41E-06	2.978459	1.837791	4.82711
CEP170	9.78E-06	0.331589	0.203292	0.540854
FIBP	1.24E-05	2.928104	1.808597	4.740577
CCND3	1.61E-05	2.925752	1.796221	4.765573
PCSK2	3.17E-05	0.37258	0.234023	0.593169
SMURF2	3.41E-05	0.348989	0.212124	0.57416
LSM10	5.09E-05	2.847691	1.716393	4.724643
KANSL1L	6.21E-05	0.37132	0.228647	0.603018
KMT2E	8.04E-05	0.389307	0.243582	0.622211
MBTD1	0.000106	0.368737	0.222675	0.610607
SENPF5	0.000114	0.3897	0.241447	0.628981
CBR1	0.000121	2.542317	1.579852	4.091127
RICTOR	0.000131	0.378542	0.230094	0.622762
MAP4K1	0.000149	2.461573	1.545405	3.920875
DESI1	0.00016	2.54098	1.565853	4.123364
MRPS18A	0.000202	2.462555	1.530952	3.96105
SLC35F5	0.000236	0.406836	0.251899	0.657071
BBIP1	0.000254	0.411795	0.256005	0.662389
CXCR6	0.000256	0.396538	0.241519	0.651057
ANGPTL3	0.000262	0.424715	0.268168	0.672649
TOMM40L	0.00029	2.425478	1.502069	3.91656
DOCK1	0.000306	2.396492	1.491016	3.851854
TAS2R43	0.000307	0.424649	0.266724	0.676079
CYP3A5	0.00031	0.420923	0.26302	0.673623
HRH1	0.00033	2.388524	1.484958	3.84189
NABP2	0.000333	2.309203	1.461895	3.647609
ATXN7	0.000356	0.428034	0.268657	0.68196
AKAP9	0.000375	0.422799	0.263108	0.679412
CYP3A7	0.000381	0.428088	0.26808	0.683601
TOGARAM1	0.000385	0.392924	0.234609	0.658069
OR9A2	0.000404	0.429826	0.269218	0.686247
FAM217A	0.000447	0.421999	0.260699	0.683098
SELPLG	0.000487	2.304792	1.441676	3.684646
CPSF6	0.000487	0.400378	0.239372	0.669678
KLHL24	0.000565	0.403156	0.240556	0.675662
HINT2	0.000603	2.321985	1.434841	3.75764
CCDC167	0.000613	2.276914	1.421995	3.645822
ARL2BP	0.000617	2.253566	1.415443	3.587963

G2E3	0.000658	0.434576	0.269042	0.701958
CCDC146	0.000666	0.443649	0.277815	0.708472
TUBGCP3	0.000721	0.446756	0.280053	0.71269
TAS2R13	0.000742	0.448922	0.281894	0.714918
PACRGL	0.000745	0.431429	0.264692	0.703201
ABLIM1	0.000754	2.281915	1.412114	3.687475
PHC3	0.000783	0.439426	0.271951	0.710036
UNC45A	0.000844	2.205966	1.386246	3.510404
MON1A	0.000867	2.191828	1.381169	3.478294
MRPL49	0.000897	2.177507	1.375626	3.44682
H3F3A	0.000919	0.458934	0.289543	0.727424
FNIP1	0.000934	0.441606	0.272168	0.716527
LAMTOR2	0.000972	2.196819	1.376268	3.506595
DDAH1	0.000976	2.199422	1.376715	3.513768
IL2RA	0.00103	2.206142	1.375399	3.538654
MLYCD	0.001059	0.444667	0.273748	0.722303
CREB3	0.001094	2.204866	1.371712	3.544063
ZNF124	0.001103	0.452675	0.281203	0.728709
LRRC9	0.001179	0.464986	0.292756	0.73854
COQ9	0.00118	2.127778	1.348299	3.357888
TAS2R31	0.001193	0.465681	0.293321	0.739321
MTMR7	0.001196	0.461769	0.289341	0.736953
NSMCE3	0.00122	2.210202	1.366802	3.57403
C18orf25	0.001267	0.46875	0.295704	0.743062
TARSL2	0.001277	0.458661	0.285446	0.736986
C10orf128	0.001303	2.168025	1.352741	3.474674
GSTCD	0.001361	2.600738	1.449001	4.667931
SUCO	0.001405	0.457597	0.283212	0.739357
RB1CC1	0.001448	0.465072	0.290349	0.744939
CDK12	0.001449	0.461111	0.286355	0.742518
SLC35A3	0.001535	0.465885	0.290435	0.747322
CHD6	0.001571	0.437668	0.262216	0.730516
LCT	0.001575	2.081756	1.32116	3.28023
IPO13	0.001589	2.171957	1.34211	3.51491
PPM1A	0.001616	0.475159	0.299193	0.754616
TDRD3	0.001803	0.476167	0.298803	0.758811
TDRD15	0.001854	0.473438	0.295653	0.758129
CYP3A4	0.001906	0.470358	0.29216	0.757247
KCNJ16	0.001997	2.115486	1.315368	3.402302
MIB1	0.002094	0.465996	0.2865	0.757948
DAXX	0.002102	2.080317	1.304315	3.318002
TAS2R30	0.002219	0.479185	0.299099	0.767699
ZNF385A	0.002263	2.233036	1.333327	3.739855
DUSP7	0.002293	2.081765	1.299474	3.335001

NCALD	0.002327	2.053799	1.292334	3.263932
CSRP1	0.002405	2.134117	1.308028	3.481925
TCTA	0.002411	2.049184	1.289208	3.257159
RAC2	0.002422	2.052752	1.289725	3.267202
DNASE1L1	0.002486	2.045007	1.286455	3.250835
ASH1L	0.002605	0.48456	0.302356	0.776563
HIGD1B	0.002814	0.499583	0.316863	0.78767
ZNF235	0.002852	0.482852	0.299282	0.779017
HEXIM1	0.003063	2.029819	1.270473	3.243018
UST	0.003092	2.075616	1.279483	3.367128
BZW1	0.003139	0.492782	0.308119	0.788116
MMACHC	0.003359	2.059417	1.270781	3.337474
SFXN3	0.003482	2.004434	1.257196	3.195806
SCFD1	0.003519	0.50423	0.318357	0.798626
STPG4	0.003537	0.503857	0.317882	0.798637
AC009119.2	0.003597	0.500698	0.314296	0.797653
LPCAT3	0.00364	2.029506	1.259503	3.270253
ZNF296	0.003648	2.010515	1.255506	3.219554
PRH2	0.003822	0.504619	0.31746	0.80212
GPR52	0.003946	0.502359	0.314569	0.802255
STAG3	0.003948	0.511334	0.324058	0.806838
CAP1	0.004009	2.005369	1.248413	3.221293
EDDM13	0.004107	0.5101	0.322103	0.80782
TRIM59	0.004315	1.998238	1.242208	3.214401
CCNL1	0.00442	0.511791	0.322691	0.811706
COA1	0.004493	0.508584	0.319012	0.81081
MTMR6	0.004766	0.506258	0.315559	0.812201
SLC4A7	0.004908	0.505312	0.314062	0.813025
AUH	0.005036	0.496188	0.304062	0.809713
APPL2	0.005126	0.516862	0.325588	0.820504
PUSL1	0.005385	1.904017	1.209804	2.996585
ANKHD1	0.00541	0.523946	0.332266	0.826203
ARFGEF1	0.005731	0.498593	0.304316	0.816898
TMEM156	0.005807	1.93109	1.209858	3.08227
ANKRD50	0.005834	0.527942	0.335252	0.831383
CAPZB	0.005842	1.962736	1.21515	3.170254
ULK4	0.00585	0.51161	0.317653	0.823998
KANTR	0.005865	0.508936	0.314771	0.822873
ADAM9	0.005929	0.512332	0.31818	0.824954
HTR2B	0.005935	0.528675	0.335734	0.832494
PHIP	0.006465	0.520527	0.325357	0.832772
ITPR2	0.006498	0.519381	0.324031	0.832502
FNDC3A	0.006505	0.514123	0.31839	0.830184
ZMAT1	0.006736	0.504926	0.308008	0.827739

ARL5B	0.006744	0.520461	0.324498	0.834767
RCOR3	0.006758	0.516122	0.319811	0.832936
SLC27A4	0.007034	1.875583	1.187164	2.963207
SNX8	0.007039	1.934485	1.197178	3.125879
TMEM87A	0.00728	0.529693	0.333026	0.842502
ZNF292	0.007411	0.514299	0.316113	0.836735
POLDIP3	0.007484	1.891148	1.185584	3.016607
ZNF233	0.007511	0.50899	0.310227	0.835099
FLT4	0.007712	0.538171	0.341179	0.848902
ACTR1A	0.007793	1.893726	1.183185	3.03097
STAG1	0.007868	0.52833	0.330032	0.845773
AQP11	0.007938	0.528194	0.32971	0.846166
ITPK1	0.00798	1.967247	1.193316	3.243114
C1QTNF3	0.008093	0.518034	0.318384	0.842881
DNAJB6	0.008103	0.532135	0.33359	0.848849
ZNF451	0.008115	0.527678	0.328713	0.847076
RPL22L1	0.008124	1.892247	1.179999	3.034411
KIAA1468	0.008219	0.535098	0.336546	0.85079
RFTN1	0.008255	1.8818	1.177169	3.008208
BCL6B	0.008289	0.542487	0.344511	0.854231
ZBTB20	0.008297	0.528534	0.3292	0.848568
ACKR4	0.008309	0.532255	0.33322	0.850176
LRR1M2	0.008531	0.544766	0.346455	0.856588
TMBIM1	0.008816	1.886369	1.173182	3.033107
PPP1R7	0.008847	1.870851	1.170497	2.990254
BPTF	0.009006	0.519642	0.317954	0.849266
G6PD	0.009068	1.905058	1.174005	3.091336
CCDC51	0.00937	1.838851	1.16142	2.911413
ZNF91	0.009403	0.540183	0.339385	0.859783
FBXW7	0.009404	0.545083	0.344803	0.861695
DUSP26	0.009879	0.548512	0.347581	0.865598
NDUFAF4	0.009906	1.885286	1.16441	3.052451
ASB2	0.010365	1.882014	1.160504	3.052101
ZNF445	0.010389	0.53256	0.328918	0.862283
PNPLA6	0.010426	1.972743	1.172956	3.317868
FAM184B	0.010474	0.541734	0.338807	0.866203
ZNF830	0.010556	1.826754	1.151075	2.899055
LMOD3	0.010689	1.826829	1.150184	2.90154
TBC1D32	0.010693	0.542606	0.339321	0.867677
SLC30A8	0.010847	0.548302	0.345332	0.870569
NDUFS2	0.010995	1.842456	1.150365	2.950925
BLOC1S1	0.011144	1.860716	1.151947	3.005576
SPIN2A	0.011153	0.547447	0.343769	0.8718
TWF2	0.011234	1.834681	1.14766	2.932973

REV3L	0.011388	0.53567	0.330311	0.868702
CPNE6	0.011606	0.558973	0.355816	0.878124
WAS	0.011642	1.846274	1.1466	2.972899
SSC5D	0.011678	0.552458	0.348344	0.876176
ECH1	0.012076	1.837571	1.142611	2.95522
UNC93B1	0.012168	1.893129	1.149483	3.117871
RNASEH2B	0.01219	0.55118	0.345943	0.878179
MFSD8	0.012317	0.537691	0.330767	0.874064
SLC25A2	0.012327	0.559701	0.355275	0.881753
ELF2	0.012367	0.543842	0.337451	0.876466
NAF1	0.012492	0.553099	0.347534	0.880254
TMEM165	0.012535	0.557701	0.352632	0.882026
NSMAF	0.01262	0.544858	0.338113	0.878019
PKN2	0.012681	0.548019	0.341514	0.879394
RUFY2	0.01279	0.535841	0.32788	0.875704
TAC01	0.013099	1.810068	1.132727	2.892443
UNC13D	0.013327	1.817421	1.132357	2.916944
HSD17B10	0.013439	1.845099	1.135256	2.998786
ZBED6	0.013557	0.560003	0.35341	0.887363
MPP5	0.013644	0.555099	0.347727	0.88614
RLIM	0.013671	0.563308	0.356963	0.888934
LSM4	0.013803	1.78437	1.125409	2.829172
MEA1	0.013852	1.804271	1.127684	2.886795
SDHA	0.014035	1.846538	1.131949	3.01224
ICK	0.014103	0.561986	0.354722	0.890355
TP53BP1	0.014159	0.544583	0.335116	0.884979
RNF130	0.014253	0.55489	0.346452	0.88873
C9orf3	0.014312	0.562905	0.355413	0.891534
SLC39A14	0.014338	1.78411	1.122482	2.835721
SENP7	0.014419	0.561202	0.3533	0.891444
ZMYM2	0.014582	0.548365	0.338608	0.88806
ORMDL2	0.014613	1.779512	1.120451	2.826239
DHX15	0.01497	0.550858	0.340751	0.890518
RIF1	0.015054	0.545061	0.334168	0.889049
PPM1G	0.015323	1.782691	1.117169	2.84468
AFG1L	0.015587	0.559043	0.348954	0.895617
SLC1A2	0.015677	0.572915	0.364646	0.900138
TOB2	0.016208	1.748235	1.108731	2.756598
SPDYE3	0.016445	0.56102	0.349853	0.899644
CD37	0.016508	1.798558	1.113068	2.906211
SCHIP1	0.016671	1.758237	1.107704	2.790813
INO80D	0.016739	0.556651	0.34447	0.899526
CCNG2	0.017255	0.574175	0.363677	0.906511
LRIG2	0.017463	0.563725	0.351392	0.904361

MARCKSL1	0.017865	0.577939	0.367137	0.909779
FAM118B	0.017875	1.731961	1.099308	2.728708
DENND1B	0.017919	0.571964	0.360151	0.908346
MOB3C	0.018001	1.75889	1.10167	2.808185
TAS2R46	0.018063	0.569524	0.357139	0.908209
SLC24A1	0.018199	0.568975	0.356315	0.908558
KDM3A	0.018242	0.556295	0.341855	0.905249
INTS7	0.018329	1.783463	1.102791	2.884264
AK9	0.018376	0.56887	0.35594	0.909181
RGS19	0.018425	1.786245	1.102648	2.893645
ATP2A2	0.018537	0.573923	0.361522	0.911115
KMT5B	0.018635	0.561571	0.347253	0.908164
DOK2	0.018718	1.798134	1.102537	2.932587
FBXW12	0.019073	0.570102	0.356367	0.912027
ZFYVE19	0.019104	1.753256	1.096245	2.804033
SCAF8	0.019151	0.569372	0.355421	0.912115
TAS2R39	0.019344	0.576624	0.363512	0.914676
UBN2	0.01967	0.566537	0.351462	0.913227
ZNF439	0.019862	0.553443	0.336396	0.910531
LRRC37B	0.019875	0.550643	0.333251	0.909847
DMTF1	0.020204	0.571123	0.355989	0.916268
SOX4	0.020355	0.572414	0.357272	0.917111
THAP11	0.020761	1.734566	1.087543	2.766529
SDHB	0.021246	1.726199	1.08484	2.746729
SCAMP2	0.021327	1.745483	1.086319	2.804619
ALMS1	0.021944	0.58313	0.367625	0.924964
KAT7	0.021957	0.580152	0.364133	0.924321
CEMIP	0.022089	0.578424	0.361955	0.924353
PSMD2	0.022222	1.732541	1.081662	2.775079
ERH	0.022652	1.712503	1.078272	2.719785
TAS2R19	0.022779	0.588637	0.373037	0.928847
VPS37A	0.022824	0.572738	0.354451	0.925457
POU5F2	0.02332	0.594607	0.379434	0.931801
NXN	0.02346	0.587425	0.370764	0.930696
IGSF10	0.023914	1.692129	1.072003	2.670981
FHL1	0.024291	1.733374	1.074052	2.79743
EXOC8	0.024599	1.695477	1.069909	2.686809
PLS1	0.024762	1.69994	1.069707	2.701484
SERF1B	0.024844	0.573796	0.353211	0.932142
BRAF	0.025067	0.576918	0.356555	0.933473
AKR1B1	0.02509	1.684473	1.067364	2.658373
RNF25	0.025097	1.687628	1.067591	2.667773
SCG5	0.025684	1.681016	1.065125	2.653037
CD300C	0.026169	1.784266	1.071085	2.972321

SLC10A7	0.026269	0.596076	0.377677	0.94077
SRRM1	0.026351	1.672947	1.062346	2.6345
ZNF2	0.026371	1.686468	1.063286	2.674892
ZC3H8	0.026423	1.767836	1.068999	2.923526
MRPS34	0.026436	1.732002	1.066396	2.813055
PMVK	0.026825	1.736554	1.065387	2.83054
MKLN1	0.027084	0.598038	0.379092	0.943435
UPP2	0.027174	1.674322	1.059828	2.645104
CASD1	0.027255	0.573915	0.350565	0.939562
RNASEH2A	0.027356	1.666192	1.05868	2.622319
MTFP1	0.027501	1.675635	1.058892	2.651594
PHF3	0.028121	0.586191	0.363892	0.944291
MEX3C	0.028214	0.592913	0.371727	0.94571
PUM2	0.028251	0.58664	0.364277	0.94474
PSMA7	0.028252	1.684815	1.057171	2.68509
ATAD2B	0.028419	0.599675	0.37957	0.947415
NAA25	0.028643	0.590449	0.368338	0.946495
PSMF1	0.028835	1.696539	1.056116	2.725311
ERCC6L2	0.029029	0.591254	0.368871	0.947705
FCGBP	0.029073	0.563785	0.33698	0.943243
PREB	0.029176	1.708489	1.055805	2.764651
THOC1	0.029187	0.592954	0.370716	0.94842
ZNF564	0.02922	0.605945	0.386253	0.950594
RUNX1T1	0.029516	0.604184	0.383806	0.951101
PFN1	0.029586	1.708913	1.054545	2.769332
USP12	0.029827	0.594647	0.372042	0.950444
MAGOH	0.02984	1.662557	1.050924	2.630158
PIGL	0.029926	0.598164	0.376133	0.951261
VPS16	0.030123	1.652699	1.049496	2.602597
OR6V1	0.030605	0.605092	0.38375	0.954103
DDX23	0.030775	1.653303	1.047656	2.609073
PLEKHG6	0.030795	0.609967	0.389466	0.955308
DNTTIP1	0.030948	1.665634	1.047876	2.647582
SECISBP2	0.030994	0.588036	0.362983	0.952623
RAB26	0.031096	1.64287	1.04614	2.57998
PHF5A	0.031186	1.672261	1.047565	2.669481
RRAGA	0.03138	1.67707	1.04727	2.685615
OR13F1	0.031474	0.579203	0.352151	0.952649
GALK2	0.031521	0.609366	0.387981	0.957075
NFAT5	0.031562	0.600011	0.376633	0.955872
FXR1	0.032545	0.578382	0.350102	0.955509
UPF3A	0.033346	1.6906	1.042309	2.742112
ZNF250	0.033725	0.571718	0.34123	0.957893
SNAP47	0.033755	1.625325	1.038002	2.544968

ECE1	0.033954	1.684399	1.040291	2.727315
C1QTNF3-AMACR	0.033987	0.609438	0.385582	0.963259
MDM4	0.034116	0.607816	0.383482	0.963385
C6orf89	0.034802	1.639588	1.035931	2.595006
CCDC81	0.035111	0.600898	0.37415	0.965063
TRIM23	0.035252	0.609248	0.384114	0.966338
ABHD11	0.035283	1.686612	1.036696	2.743968
ZNF750	0.035738	0.609446	0.383886	0.967539
TINF2	0.036004	1.65073	1.033269	2.637175
MPV17L2	0.036215	1.699404	1.034651	2.791255
OR13C5	0.036347	0.598978	0.370657	0.967943
MIER2	0.036545	0.606871	0.379986	0.969226
LRRC28	0.036579	0.592179	0.362333	0.967829
TLK1	0.036596	0.605863	0.378716	0.96925
UBE2Q1	0.036861	1.631875	1.030327	2.584632
LYPLA2	0.036918	1.667774	1.031544	2.696413
CCDC138	0.037031	1.811507	1.03639	3.166336
SOGA3	0.037313	0.614341	0.388376	0.971778
CLOCK	0.037425	0.616949	0.391478	0.97228
ODF3	0.037564	0.615404	0.389447	0.972462
CSK	0.037575	1.650873	1.029227	2.647989
HIPK1	0.037601	0.614524	0.388331	0.972469
NUDT13	0.037885	0.606003	0.377675	0.972372
RFX3	0.03803	0.590188	0.358615	0.971298
ZCCHC4	0.038511	0.599841	0.369664	0.973341
APEX2	0.038589	1.616489	1.025529	2.54799
SELENOW	0.038608	1.622411	1.02568	2.566315
TAS2R3	0.038914	0.610729	0.382472	0.975209
KCTD4	0.038966	0.614109	0.38656	0.975605
FAM196A	0.039179	1.649592	1.025149	2.654399
ZNF410	0.039856	0.617609	0.390058	0.977909
FYN	0.040141	0.597461	0.365328	0.977095
AC012309.1	0.0403	0.62084	0.393655	0.979137
MTX2	0.040504	1.623115	1.02117	2.579886
KCNIP4	0.040675	0.608745	0.378459	0.979156
PEX1	0.040705	0.567639	0.330025	0.976335
PSMC4	0.040839	1.680306	1.021855	2.763044
CD109	0.04216	1.628449	1.017421	2.606438
BRWD1	0.042369	0.611445	0.380253	0.9832
NMT1	0.042469	1.616502	1.01645	2.57079
SRXN1	0.042539	1.638239	1.016749	2.639616
NKTR	0.042723	0.6027	0.369328	0.983535
AC087632.1	0.042927	0.623371	0.394483	0.985065
KIAA1147	0.043002	0.60053	0.366474	0.984071

TFEB	0.043005	1.673586	1.016342	2.755854
PTPRD	0.043011	0.616566	0.38598	0.984906
HCCS	0.043608	1.63665	1.01423	2.641042
CLTA	0.043974	1.607356	1.012894	2.550702
PTPA	0.044121	1.628883	1.012923	2.619408
ZDHC5	0.044212	1.651612	1.01308	2.6926
RPS27L	0.044228	1.608324	1.012349	2.555154
EIF2B1	0.044483	1.605642	1.011744	2.548159
PTGIR	0.044989	0.610464	0.376799	0.989034
C11orf95	0.045079	0.591011	0.353347	0.98853
APOBEC3C	0.045311	1.610747	1.010003	2.568811
ZNF720	0.045453	0.624579	0.393832	0.990522
SNRPG	0.045523	1.60356	1.009449	2.547335
NR2C2	0.045704	0.587656	0.348863	0.989901
PSMD4	0.045924	1.615194	1.008715	2.586314
TMEM109	0.045927	1.624108	1.008809	2.614695
METTL25	0.046254	0.630666	0.400797	0.992372
SESN1	0.04632	1.616603	1.007866	2.59301
GPKOW	0.046329	1.590539	1.007579	2.510786
TMEM203	0.04724	1.605777	1.005788	2.563683
SOCS2	0.047535	1.57402	1.004943	2.465352
ZNF66	0.047733	0.619003	0.385005	0.995222
TRIM13	0.04777	0.627941	0.396116	0.99544
BIRC6	0.047834	0.627639	0.395684	0.995568
EFNA4	0.048016	1.579138	1.003997	2.48375
DNAL1	0.048106	0.613729	0.378199	0.995941
ZFAND6	0.048603	0.633547	0.402507	0.997205
SMCHD1	0.048706	0.633517	0.402385	0.997411
PDLIM3	0.049078	0.625953	0.392559	0.99811
PHF14	0.049308	0.633621	0.402031	0.998618
DHX36	0.049322	0.63328	0.401588	0.998645
AC023055.1	0.049726	0.636873	0.405826	0.999459
MON2	0.049807	0.626284	0.392386	0.999606
AL139353.1	0.050217	0.630663	0.397562	1.000436
INPP5J	0.05066	1.570906	0.998704	2.47095
BARHL1	0.050809	0.631809	0.398538	1.001617
TRIM15	0.051191	1.573938	0.997656	2.483103
ZNF852	0.051553	0.611429	0.372608	1.003319
KCNQ5	0.052039	0.622519	0.385912	1.004194
GCNT7	0.052302	0.636655	0.403511	1.004506
POMGNT1	0.052639	1.581293	0.99479	2.513585
MYH9	0.052669	1.611584	0.994514	2.61153
PCBD2	0.05304	0.616973	0.378253	1.006353
SMC5	0.053173	0.627151	0.390815	1.006403

VPS25	0.053662	1.580872	0.992809	2.517258
MRPS12	0.053776	1.58397	0.992557	2.527775
ADAM20	0.054183	0.640576	0.407068	1.008035
GNRHR	0.054367	0.632483	0.396614	1.008625
RTCB	0.054838	1.562969	0.990784	2.465596
NRIP2	0.055022	0.637857	0.402947	1.009717
AP003108.2	0.055154	0.634857	0.399024	1.010073
FBXL20	0.055532	0.623607	0.384568	1.011229
KCNJ13	0.055905	0.641288	0.40667	1.011262
FRYL	0.055974	0.614168	0.372543	1.012506
DCUN1D2	0.056172	0.629678	0.391696	1.01225
C14orf28	0.056667	0.642062	0.407092	1.012654
NRG1	0.05704	0.618995	0.377694	1.01446
FAM227B	0.057073	0.640501	0.404782	1.013487
BLM	0.057112	1.613799	0.985636	2.642303
HPS1	0.057427	1.580063	0.985678	2.532877
DEDD	0.05755	1.609702	0.984861	2.63097
LINC00238	0.057695	0.632926	0.394659	1.015043
ZNF407	0.057719	0.644099	0.408931	1.014507
NF1	0.057973	0.607884	0.363361	1.016961
MGST2	0.05867	1.569698	0.983608	2.505014
FAM58A	0.058999	1.559612	0.983251	2.473824
CFL1	0.059282	1.604897	0.981643	2.623859
CATSPERD	0.060278	0.642678	0.405217	1.019294
WDR1	0.061193	1.577798	0.978824	2.543303
SNX20	0.061232	1.553327	0.979474	2.463387
DCTN2	0.061786	1.565957	0.97812	2.507076
TNFAIP8L2	0.062139	1.568595	0.977412	2.51735
PMM1	0.063228	1.606055	0.974226	2.647653
TFB1M	0.063347	1.582521	0.974806	2.569097
SETMAR	0.064176	0.636736	0.394797	1.026941
SIRT6	0.06435	1.566672	0.973603	2.521007
DNAJB7	0.064669	0.641579	0.400655	1.027376
TXN	0.064774	1.539959	0.973894	2.435043
LHX4	0.064917	0.634099	0.390914	1.028568
DLG1	0.065231	0.647325	0.407691	1.027812
LRRC19	0.065514	0.650471	0.411591	1.027992
UBA6	0.065616	0.631143	0.386674	1.030175
ID3	0.065831	0.655554	0.418037	1.028021
CRYBA1	0.066065	0.650833	0.41168	1.028915
UBL4A	0.066225	1.533304	0.97177	2.419318
CLVS2	0.066311	0.654815	0.416732	1.028919
USP16	0.066356	0.650485	0.411023	1.029457
METTL15	0.066413	0.650922	0.411554	1.029511

UBE2B	0.066522	0.656354	0.418612	1.029116
CKS2	0.066531	1.522673	0.971731	2.385981
CRTC3	0.066615	0.651163	0.411729	1.029835
TACR1	0.066984	0.657519	0.419831	1.029774
PBLD	0.067131	0.648768	0.408245	1.030997
NKRF	0.06719	1.552792	0.969331	2.487451
POLG2	0.067348	0.643578	0.401361	1.031969
TRADD	0.067971	1.537269	0.968749	2.439429
BLOC1S3	0.06835	1.559788	0.967074	2.515773
GPATCH2L	0.068722	0.645877	0.403391	1.034125
CCDC124	0.069029	1.551282	0.966351	2.49027
COX20	0.069038	0.658301	0.419458	1.033143
ZKSCAN3	0.071004	0.64177	0.396529	1.038687
KMT2A	0.071331	0.633918	0.386255	1.040378
CDH12	0.071388	0.652455	0.410163	1.037873
NEUROD2	0.071415	0.657098	0.41626	1.037278
NEMP2	0.072042	0.651814	0.408883	1.039077
TNFSF15	0.072278	1.587525	0.959051	2.627845
CD160	0.072847	0.659074	0.417922	1.039378
ZNF460	0.073188	0.631236	0.381605	1.044166
FAM135A	0.073842	0.656692	0.414107	1.041385
ATP9B	0.074364	0.652373	0.408072	1.04293
POU4F1	0.074772	0.648785	0.403108	1.044193
USP5	0.074981	1.514784	0.959027	2.392603
CISD3	0.07504	1.536736	0.957546	2.466259
TCERG1	0.076094	0.651887	0.406297	1.045927
TCF12	0.076224	0.653301	0.408069	1.045908
CENPB	0.076709	1.543772	0.954495	2.496853
TNRC6B	0.077038	0.652478	0.406457	1.047413
TRIM16L	0.078166	1.512646	0.954424	2.397361
ZNF350	0.078394	0.63525	0.383275	1.052878
PANK4	0.078415	1.496148	0.955246	2.343332
NDUFB10	0.078633	1.518657	0.953303	2.419292
NRM	0.078921	1.523962	0.952491	2.438302
WRN	0.079025	0.649015	0.400634	1.051387
LIG3	0.079071	0.653799	0.406878	1.050569
GPX1	0.08008	1.50294	0.952349	2.37185
FGF6	0.080207	0.668743	0.426084	1.049598
MEX3A	0.080839	0.668481	0.42533	1.050636
HECTD3	0.081155	1.540418	0.94791	2.503283
RABGGTB	0.081266	0.670686	0.428043	1.050876
STRBP	0.081571	1.54308	0.947076	2.514155
ACAD11	0.081846	0.666579	0.422128	1.052591
RBM14-RBM4	0.081941	0.669915	0.426573	1.052075

PNRC1	0.082111	0.669406	0.425776	1.05244
PDZK1	0.082533	0.66319	0.417143	1.054364
C3orf70	0.08262	0.66467	0.419072	1.0542
PSMD13	0.082847	1.497389	0.948849	2.363048
PRPF4B	0.083178	0.667492	0.42252	1.054495
NR2C1	0.084182	0.652536	0.401967	1.059299
NME9	0.084274	1.503057	0.946364	2.387222
ZNF236	0.085146	0.664685	0.417512	1.058187
PRR4	0.085795	0.664882	0.417373	1.059166
PBX2	0.086371	0.656973	0.406459	1.061886
EMX1	0.086644	0.669294	0.422801	1.059492
OXNAD1	0.086718	0.674959	0.430465	1.058319
AL136531.2	0.087464	0.668134	0.420727	1.061028
ZBTB25	0.087761	0.656746	0.405298	1.064192
ANGPT2	0.088391	1.4983	0.941059	2.385507
CLINT1	0.08844	0.658516	0.407231	1.064859
NDUFA4	0.089352	1.491122	0.940433	2.364277
SEMA6A	0.089487	0.670872	0.423201	1.063489
ADH1A	0.090845	0.669864	0.421008	1.065818
ELP2	0.091056	0.655615	0.401782	1.069811
AFF4	0.091317	0.673398	0.425533	1.06564
U2AF1	0.091376	0.677239	0.43076	1.064753
MT-ND4L	0.091738	0.674139	0.426292	1.066085
OCLM	0.091843	0.669179	0.419476	1.067524
PCM1	0.092253	0.665402	0.414125	1.069146
TSGA10	0.092308	0.661756	0.409197	1.070197
PABPC4L	0.092419	0.679617	0.43341	1.065688
SF3B6	0.092515	1.471109	0.938269	2.306546
C11orf97	0.092738	0.664351	0.412418	1.070181
HIST1H2BM	0.092983	0.673266	0.424351	1.068188
RBP2	0.093312	0.668076	0.417098	1.070074
PRB3	0.093502	0.678536	0.431271	1.067567
FIBCD1	0.093926	0.674392	0.425327	1.069305
THADA	0.094018	0.668343	0.417037	1.071086
TTC23L	0.094775	1.48095	0.934279	2.347491
RUNDC3B	0.095191	0.67808	0.42964	1.070181
OR14A2	0.095253	0.678821	0.430625	1.070068
MRPL28	0.095432	1.494065	0.931981	2.395147
BST2	0.09584	1.471652	0.933933	2.318967
KMT2C	0.095906	0.680291	0.432269	1.070619
MRPL37	0.09616	1.465286	0.934245	2.29818
FAIM	0.096888	0.665588	0.411605	1.076293
C4orf32	0.09693	1.47185	0.932518	2.323108
RBM14	0.096991	0.682037	0.43405	1.071707

SAAL1	0.097413	1.479402	0.931035	2.350751
KLB	0.097458	0.679663	0.430488	1.073067
MIS18BP1	0.097465	0.68343	0.435707	1.071995
ZBED3	0.097483	0.649085	0.389322	1.082168
TLN1	0.098144	1.498635	0.927874	2.420488
PIBF1	0.09833	0.681233	0.43215	1.073882
POLDIP2	0.098989	1.472062	0.92988	2.330375
NRDE2	0.099082	0.677396	0.426408	1.076118
ACO2	0.099241	1.486917	0.927799	2.382974
SETD5	0.099671	0.670656	0.416833	1.07904
FASTKD1	0.100242	1.516004	0.923059	2.489838
AP2S1	0.100549	1.515923	0.922654	2.490666
HIST1H4L	0.100555	1.464635	0.928812	2.309569
SNRPE	0.100804	1.471352	0.927677	2.333654
WDR12	0.100958	1.459375	0.928963	2.292639
SLC4A5	0.101369	0.678622	0.426768	1.079106
FOSL1	0.101716	1.467402	0.927025	2.322771
LPIN1	0.101888	1.489026	0.924129	2.399233
TIMM23B	0.101969	0.677607	0.42502	1.080306
CTAGE5	0.10304	0.677017	0.423588	1.08207
PEF1	0.103113	1.479843	0.923711	2.370801
CAPN1	0.103365	1.509133	0.919719	2.476279
KAT6A	0.103586	0.656161	0.395065	1.089813
WDPCP	0.104019	0.675228	0.420563	1.084102
VASP	0.10423	1.465093	0.924211	2.322519
CNOT4	0.104255	0.680759	0.428062	1.082628
FAM214A	0.104614	0.688338	0.438443	1.080661
AC005520.1	0.10468	0.690087	0.440869	1.080183
RBBP6	0.104702	1.543335	0.913689	2.606888
NHLRC3	0.105323	0.682005	0.429182	1.08376
CLDN20	0.105406	0.684575	0.432717	1.083022
RDH14	0.105696	1.480241	0.920408	2.380591
ANKUB1	0.106749	0.691441	0.44161	1.082609
ATCAY	0.10715	0.68694	0.435039	1.084698
USP13	0.107197	0.685304	0.43272	1.085325
APEH	0.107892	1.447425	0.922182	2.271828
B4GALNT2	0.108228	0.692784	0.442679	1.084195
CHST2	0.108288	0.6785	0.422635	1.089268
CNTRL	0.108514	0.684277	0.430539	1.087556
UPF3B	0.10896	1.495117	0.914297	2.444913
ARHGAP15	0.109292	1.452319	0.919838	2.293046
GPR27	0.109638	1.449104	0.919886	2.282783
LUC7L	0.109884	0.679797	0.423528	1.091129
RBM4	0.110162	0.683097	0.427962	1.090333

GABRA2	0.110214	0.6916	0.439887	1.087348
GPR22	0.111689	0.693448	0.441687	1.088713
ARPC1B	0.111812	1.46614	0.914844	2.349655
TPRKB	0.112567	1.448063	0.916606	2.287662
RANBP3L	0.112896	0.673464	0.4131	1.097929
EDRF1	0.113543	0.679587	0.421184	1.096524
PSTK	0.11377	0.6853	0.429025	1.094658
NOSTRIN	0.114479	0.69535	0.442852	1.091815
CCAR1	0.115756	1.453303	0.912093	2.315653
HOMER1	0.115968	0.69761	0.445267	1.092963
SBK2	0.117573	0.693855	0.439018	1.096615
ACO20915.2	0.11773	0.672863	0.409581	1.105384
NVL	0.11792	1.513754	0.900227	2.545414
IRAK1BP1	0.118201	0.667408	0.401878	1.108381
STX7	0.118519	0.694009	0.438721	1.097846
LINC00282	0.118544	0.699184	0.446121	1.095797
RPGRIP1L	0.118772	0.687244	0.428995	1.100955
HLF	0.119429	1.430284	0.911585	2.244126
TPST2	0.119519	1.4338	0.910906	2.256854
TNFSF4	0.120223	1.4534	0.906896	2.329234
C17orf98	0.120342	1.428325	0.910899	2.239668
UHRF2	0.12068	0.687748	0.428661	1.103428
COX6C	0.121157	1.434769	0.908916	2.264853
ZSCAN30	0.121179	0.68898	0.43013	1.103605
NELFE	0.121636	1.439353	0.907612	2.282622
XPO4	0.121768	0.693188	0.435782	1.102637
SHPRH	0.122043	0.698081	0.442636	1.100941
TPI1	0.122772	1.443707	0.905599	2.30156
KBTD6	0.123468	1.444545	0.904671	2.306596
WDR73	0.123531	0.690448	0.430932	1.10625
ATP5B	0.123949	1.426718	0.90721	2.243719
FTSJ1	0.124048	1.430918	0.906371	2.259038
MUC5AC	0.124062	0.703767	0.449771	1.1012
KIAA0753	0.125831	0.689936	0.428964	1.109679
POLR2K	0.126479	1.438541	0.902346	2.293356
RASSF10	0.126628	1.427054	0.904232	2.25217
MTMR10	0.12753	0.70418	0.448522	1.105563
IRF5	0.128341	1.425432	0.902669	2.250941
TMEM200A	0.128929	1.454645	0.896727	2.359682
WDR70	0.130109	0.70654	0.450602	1.107849
TBXA2R	0.130359	1.431781	0.899311	2.27952
STPG2	0.130846	0.69813	0.437997	1.11276
OR13G1	0.130901	0.706939	0.450768	1.10869
CASP10	0.131004	1.434151	0.898167	2.289985

SARS	0.131854	1.452949	0.893733	2.36207
PRSS37	0.132341	0.70439	0.446283	1.111771
SNRPC	0.1339	1.423864	0.897001	2.260185
GOLGA4	0.133971	0.709279	0.452594	1.111539
SLC38A4	0.134812	0.710088	0.453348	1.112224
EPG5	0.134847	0.683307	0.414794	1.12564
HHAT	0.135926	1.425861	0.894451	2.272992
RNF212B	0.136137	0.704302	0.444165	1.116797
EFNA3	0.136495	1.437046	0.891638	2.316073
FERMT3	0.136601	1.432784	0.892362	2.300488
MYO9A	0.136776	0.697529	0.434003	1.121068
TGFB1	0.136789	1.445526	0.889656	2.348712
NUBPL	0.137026	0.695354	0.430741	1.122522
TFE3	0.137247	1.433208	0.891583	2.303865
UAP1	0.138598	1.418995	0.893003	2.254805
SMC4	0.138624	1.401956	0.896472	2.192462
TMEM182	0.139496	1.532971	0.869849	2.701616
UFM1	0.139597	0.702135	0.439201	1.122479
PDE6D	0.139821	1.419782	0.891561	2.260959
DDO	0.139984	1.403361	0.894799	2.200967
ERC1	0.140711	0.704902	0.44266	1.122503
PABPN1L	0.140908	0.714223	0.45632	1.117888
GATS	0.141107	0.707112	0.445697	1.121857
VPS13A	0.141192	0.706221	0.444344	1.122438
CAPNS2	0.141688	0.709774	0.449318	1.121207
IPMK	0.143581	0.71638	0.458169	1.120111
DNAJC19	0.143641	1.427406	0.885956	2.299763
GFOD1	0.144689	1.401845	0.890365	2.207149
ZNF227	0.144878	0.696353	0.428083	1.132742
FAM196B	0.145384	0.709923	0.447638	1.125889
BTF3L4	0.146089	0.690043	0.418416	1.138006
MREG	0.14654	1.399201	0.889092	2.201979
SMIM2	0.14762	0.716404	0.456145	1.125156
CKMT2	0.14846	0.707115	0.441917	1.131461
DDX47	0.148483	0.716728	0.456193	1.126057
PRIM2	0.148983	1.413415	0.883454	2.261285
USP24	0.149416	0.691304	0.418491	1.141962
CCDC66	0.15043	0.711204	0.446959	1.131673
BRWD3	0.151463	0.717064	0.455186	1.129603
SLC39A1	0.152476	1.401417	0.882672	2.225026
ATP13A1	0.152798	1.405547	0.881389	2.24142
KIRREL	0.153449	0.716826	0.453826	1.132238
PROZ	0.153487	0.720897	0.459947	1.129896
AGO3	0.154393	0.713981	0.449087	1.135123

SPDYA	0.154693	0.714851	0.450236	1.134985
CCNI	0.155287	0.715958	0.451597	1.135075
CERS2	0.155554	0.716285	0.451953	1.135216
AC020915.1	0.156585	0.713182	0.446787	1.138414
FNDC9	0.157236	0.722597	0.460648	1.133503
PLCB4	0.157314	1.411437	0.875463	2.275544
AP2M1	0.158783	1.404067	0.875774	2.251041
UBE2V1	0.159216	0.714231	0.447031	1.141141
TTC25	0.15933	0.721487	0.457916	1.136767
DSEL	0.159389	0.704458	0.43245	1.147558
CHIC2	0.159813	0.718556	0.453235	1.139193
FER1L6	0.159901	1.378179	0.881112	2.155659
MANSC4	0.16076	0.726254	0.464478	1.135564
CCDC181	0.161186	0.718415	0.452336	1.14101
CRX	0.161237	0.725295	0.462772	1.136742
MBD5	0.162201	0.709538	0.438535	1.148016
CCT2	0.163162	0.712779	0.442881	1.147159
TRA2B	0.163862	0.726577	0.463438	1.139126
GPR174	0.165495	0.713459	0.44273	1.149738
MTRNR2L11	0.16672	0.725778	0.460799	1.143131
VAV3	0.167759	1.404203	0.866873	2.274596
ZNF43	0.169133	0.710279	0.436165	1.156664
KAT6B	0.169528	0.702582	0.424591	1.16258
SLC35F6	0.171472	0.704243	0.426059	1.16406
ZNF674	0.171473	1.37942	0.869912	2.187348
GLIPR1L1	0.173097	0.721833	0.451617	1.153727
CERS6	0.173142	0.716236	0.443103	1.157732
VPS13C	0.173347	0.722595	0.452657	1.153507
PHLPP2	0.173528	0.724173	0.454984	1.152627
UQCR11	0.174161	1.388166	0.864976	2.227814
UBR5	0.174966	0.715382	0.440912	1.160711
SNX13	0.176206	0.726921	0.457896	1.154005
BMX	0.176255	0.720255	0.447656	1.158852
MED30	0.176757	0.730082	0.46252	1.152427
STX19	0.177817	0.73452	0.468926	1.150543
PIAS2	0.178412	0.718294	0.443613	1.163053
ECD	0.178659	0.736212	0.471175	1.150334
AURKAIP1	0.178895	1.391734	0.859474	2.253613
SEH1L	0.17898	0.723448	0.451196	1.159977
GPR37L1	0.179723	0.72483	0.452955	1.159893
NEB	0.180067	0.731802	0.463584	1.155204
TXN2	0.180797	1.381523	0.860601	2.217757
MRPS36	0.182453	1.373254	0.861483	2.189048
FLII	0.182664	1.374595	0.860893	2.194828

ERCC8	0.182753	0.722509	0.447909	1.165458
C5orf42	0.182787	0.723053	0.448726	1.165088
TPP2	0.183293	0.716684	0.438774	1.170618
UBA1	0.183345	1.363659	0.863523	2.153464
KRR1	0.183736	0.73049	0.459757	1.160646
TSP0	0.184782	1.40009	0.851434	2.302294
HACL1	0.185273	0.721784	0.445566	1.169236
NCBP2	0.185837	0.728562	0.455739	1.164707
ACTL9	0.185898	1.37291	0.858426	2.195742
FGF5	0.186178	0.738973	0.471906	1.15718
COX17	0.186468	1.363116	0.860879	2.158359
RBM39	0.186663	0.739927	0.473187	1.157029
NFASC	0.187631	0.740111	0.473016	1.158026
HIST1H3F	0.187871	0.74037	0.473312	1.15811
ADH6	0.188106	0.734683	0.464204	1.162763
CYP2A6	0.190305	0.740087	0.471696	1.161193
KIAA2013	0.192195	1.369602	0.853701	2.197268
KANSL2	0.192491	0.729027	0.453234	1.172641
TEX261	0.19307	1.355919	0.857249	2.144671
SDE2	0.193206	0.741361	0.472337	1.163611
MMP28	0.193379	0.729002	0.452765	1.173774
SLC25A36	0.193485	0.725672	0.447546	1.176637
HK1	0.19351	1.379998	0.849242	2.242463
PDE10A	0.194174	0.734044	0.460273	1.170654
ADH4	0.194399	0.736995	0.464823	1.168535
DYNC2LI1	0.195001	0.718508	0.435812	1.184581
TAS2R14	0.195636	0.73751	0.465045	1.169608
RBM25	0.196465	0.74177	0.471434	1.167127
CTAG2	0.196617	0.745194	0.476859	1.164526
ANGPTL1	0.197175	0.741847	0.471217	1.167904
SPCS2	0.197197	0.732008	0.455618	1.176065
METTL8	0.197345	1.384077	0.844398	2.268681
SMG6	0.198347	0.740574	0.468622	1.170345
DNAJB2	0.198862	1.371596	0.847008	2.221085
PDS5B	0.198934	0.741391	0.469648	1.170367
ABRACL	0.199204	1.355648	0.851929	2.157201
NEK10	0.199221	0.742506	0.471297	1.169782
N4BP2L2	0.199244	0.742906	0.471928	1.169477
MOB3A	0.19948	1.368386	0.847493	2.209434
ACYP2	0.200786	0.739454	0.46567	1.174207
ATXN3	0.201989	0.73794	0.462683	1.176951
ATG2B	0.20212	0.711965	0.422424	1.199964
MTUS2	0.20228	0.747319	0.477605	1.169347
SH3YL1	0.202289	0.724016	0.440716	1.189426

IRAK1	0.202327	1.353136	0.850025	2.154026
HIST2H3A	0.20284	0.743729	0.471539	1.173037
RALGAPA1	0.203342	0.738961	0.463661	1.177721
FKBP7	0.203969	0.73434	0.456028	1.182503
BRMS1L	0.204039	0.728954	0.447537	1.187328
LDAH	0.204673	1.358601	0.84611	2.181511
FAM129B	0.204771	1.389274	0.83578	2.309321
OMD	0.20529	0.745676	0.473516	1.174262
LRP10	0.20536	1.364676	0.843439	2.208033
CDRT1	0.206105	1.346309	0.849078	2.134724
GSK3B	0.20634	1.357873	0.844884	2.182333
CDKAL1	0.206471	0.742349	0.467591	1.178556
RBM20	0.20705	0.746828	0.474548	1.175333
ZBTB10	0.207248	0.727539	0.443782	1.192733
USP8	0.207488	0.749591	0.478838	1.17344
EXOC6	0.208755	1.357465	0.842893	2.186175
MASP2	0.209096	0.74171	0.465313	1.182285
CD33	0.209708	1.344012	0.846783	2.133215
PPA2	0.209788	1.345558	0.846166	2.13968
UPF1	0.210381	1.348538	0.8446	2.153154
C19orf33	0.211111	1.330699	0.850367	2.082347
MED17	0.211905	0.738946	0.459545	1.188222
SPINK4	0.212184	0.751042	0.478996	1.177597
MED21	0.212796	0.724334	0.436121	1.203015
WIPF3	0.213764	0.752131	0.480039	1.178447
RPS6KB1	0.214252	0.743956	0.46648	1.186483
OR13C9	0.214609	0.742788	0.464424	1.187996
TMEM161B	0.214899	0.749039	0.474436	1.182583
TARBP1	0.215354	0.711049	0.414588	1.219503
TTN	0.215635	0.749102	0.474191	1.183392
ZBTB11	0.216077	0.745638	0.468338	1.187125
OMG	0.216211	0.746136	0.469084	1.186823
FAM92A	0.216591	1.340983	0.841988	2.135704
HECTD1	0.217174	0.748727	0.47285	1.185559
RAB3GAP2	0.2174	1.33631	0.84303	2.11822
ZNF789	0.217591	0.749214	0.473449	1.185599
CETN3	0.218955	1.349403	0.836852	2.175878
IL15RA	0.219577	1.349404	0.836313	2.177284
HHEX	0.220095	1.351631	0.835039	2.187807
VWC2L	0.220329	0.750974	0.475045	1.187176
BMI1	0.220364	1.342557	0.838181	2.150442
DUSP11	0.221217	1.329912	0.842237	2.099961
STAT6	0.221637	1.348038	0.835036	2.176202
ATP2C1	0.221826	0.730918	0.44205	1.208552

KXD1	0.222139	1.343136	0.836443	2.156769
UBE2E1	0.222842	0.744372	0.463073	1.196549
MTRNR2L7	0.223214	0.754813	0.480029	1.186894
CEP63	0.224531	0.748171	0.468462	1.194889
FOXC1	0.225971	1.319787	0.842249	2.068078
PSMC6	0.226402	0.757505	0.483017	1.18798
EIF4A2	0.226535	1.321379	0.84116	2.075758
TMEM64	0.226752	0.735952	0.447664	1.209894
ZNF254	0.226998	0.732348	0.441822	1.213915
SUMO1	0.228242	1.318175	0.841041	2.065995
VPS13B	0.228329	0.749078	0.468152	1.198581
C2orf76	0.229202	0.75162	0.471925	1.197082
DEFB108B	0.229823	1.320944	0.838643	2.080614
PSMD8	0.230047	1.333082	0.83362	2.131796
PMPCA	0.230668	1.326165	0.835855	2.104089
EVC2	0.231223	0.748967	0.4666	1.20221
NAA30	0.232099	0.732793	0.440074	1.220214
IWS1	0.232505	1.377784	0.814143	2.33164
CORO1A	0.233223	1.325727	0.833918	2.107585
GALNT16	0.233278	0.758677	0.481761	1.194764
ADAM21	0.233529	0.758112	0.480695	1.195631
ATG10	0.233836	1.35724	0.820853	2.24413
GRIA4	0.235216	0.755569	0.475649	1.200222
CDNF	0.2353	1.346606	0.823771	2.201277
PRELID1	0.23535	1.34236	0.825425	2.183034
TAMM41	0.235477	0.748673	0.464102	1.207732
HORMAD1	0.235503	1.329966	0.830301	2.130323
HIST1H2BN	0.23619	1.31434	0.836171	2.065952
RAG1	0.236869	1.333547	0.827697	2.148549
GADL1	0.237394	0.761956	0.485367	1.19616
SPPL3	0.23758	0.757756	0.478199	1.200744
ZNF493	0.238346	0.7454	0.457377	1.2148
CCDC171	0.23876	1.361494	0.814811	2.274964
FAM174A	0.239088	0.758215	0.478262	1.202039
SLC3A1	0.239288	0.763074	0.486381	1.197174
OR13C4	0.239307	0.76218	0.484853	1.198131
RALGPS2	0.23981	0.759844	0.480666	1.201171
RIOK1	0.240077	1.31869	0.831195	2.092099
YWHAH	0.241351	1.310492	0.833646	2.060094
SLC12A1	0.24146	0.761281	0.482324	1.201576
CRIP1	0.24175	1.313106	0.832207	2.071895
TRNT1	0.241855	0.751181	0.465221	1.212916
CC2D2B	0.241897	0.756578	0.474194	1.207123
KIAA1109	0.243117	0.756275	0.473113	1.208913

DKK4	0.244473	0.764393	0.486208	1.201741
TEX101	0.244671	0.765873	0.488649	1.200376
SPINK9	0.245591	0.755569	0.470763	1.212679
PIGP	0.246447	0.759337	0.476699	1.209554
DYNLL1	0.246911	1.35013	0.812245	2.244212
PDK1	0.247473	0.764236	0.48454	1.205382
FLOT2	0.248479	1.345339	0.812892	2.226543
SHQ1	0.24913	1.349146	0.810721	2.245158
PUS10	0.249473	1.307767	0.828337	2.064683
RBM34	0.25101	0.767079	0.487767	1.206336
TAS1R1	0.251043	0.764742	0.483739	1.20898
RASIP1	0.251542	0.76851	0.489987	1.205355
GPR18	0.252436	0.766928	0.486842	1.208152
SMC1B	0.252893	0.770417	0.492661	1.204768
PPP2R3A	0.253789	0.769657	0.490927	1.20664
KLHL15	0.253922	0.76549	0.483675	1.211505
AVL9	0.254132	0.769746	0.490922	1.206932
L2HGDH	0.256384	1.321728	0.816479	2.139632
RBBP8	0.256785	1.311542	0.820759	2.095793
CEP192	0.257187	0.768002	0.486478	1.212444
CCNT1	0.25794	0.761375	0.47475	1.221046
DENND6A	0.259513	0.771597	0.491638	1.210976
C15orf61	0.260959	0.769667	0.487604	1.214894
CSPP1	0.261711	0.755618	0.463214	1.232601
OR2A1	0.262482	1.303352	0.819984	2.071658
CASC1	0.262531	0.773351	0.493303	1.212382
ATR	0.263527	0.763048	0.474975	1.225837
RNF32	0.26382	0.769459	0.485905	1.218483
CAPN7	0.266572	1.293754	0.821349	2.037868
MED29	0.266613	1.307874	0.814531	2.100023
ELAVL4	0.266753	1.289696	0.823183	2.02059
TGIF2	0.267831	0.740787	0.435719	1.259449
STAU2	0.269263	0.760257	0.467489	1.236372
RBMX	0.269443	0.745641	0.442893	1.255338
PCDHGA10	0.270149	0.773144	0.489391	1.221421
CDK13	0.270251	0.76417	0.473728	1.232682
TRIM16	0.270595	1.28686	0.821618	2.015546
MATR3	0.27189	0.774728	0.491367	1.221495
PPP6R3	0.271968	0.772666	0.4877	1.22414
TASP1	0.272244	0.763808	0.472161	1.235601
EID3	0.272614	0.776085	0.49343	1.220654
CHML	0.272844	1.295498	0.815579	2.05782
MUL1	0.274076	1.297891	0.813419	2.070916
HACE1	0.274793	0.768629	0.479308	1.232592

TRMT44	0.276252	0.766154	0.474315	1.237556
OSBPL9	0.276845	0.767097	0.475673	1.237066
MTRNR2L3	0.2769	0.774285	0.488242	1.227909
CD1B	0.277713	1.295329	0.811825	2.066797
FAM13B	0.278893	0.76791	0.476117	1.238531
TET1	0.279099	1.294932	0.810932	2.067803
C1orf27	0.280131	0.777849	0.493059	1.227133
HERC3	0.280758	0.779116	0.49503	1.226232
CC2D1A	0.280933	1.292179	0.810894	2.059119
ADGRA3	0.280961	0.758161	0.458335	1.254122
ARMC2	0.28197	1.301609	0.805253	2.103919
LIX1L	0.282633	0.778133	0.492396	1.229683
ETV4	0.282736	1.278247	0.816745	2.000519
SPTSSB	0.28294	0.782202	0.49956	1.224759
HNRNPA0	0.282959	1.281782	0.814716	2.01661
MCC	0.283094	0.777053	0.490253	1.231634
PMS1	0.284311	1.311867	0.79815	2.156231
SUSD5	0.284968	0.779116	0.493062	1.231127
ZCCHC11	0.28531	0.77085	0.478223	1.242536
ATAD5	0.285554	0.767512	0.472261	1.24735
KCTD17	0.285788	1.295152	0.805524	2.082396
KLHDC2	0.286188	0.755915	0.452001	1.26417
EFCAB11	0.287082	0.773708	0.482429	1.240855
ZCCHC3	0.287109	1.280359	0.812287	2.018152
TSHR	0.288476	0.77851	0.490329	1.236063
AC093155.3	0.2885	0.781512	0.49572	1.23207
CEP290	0.288606	0.76175	0.460813	1.259216
ARIH1	0.288607	0.781185	0.495079	1.232632
UBR1	0.288752	0.780998	0.494673	1.233052
SPRYD3	0.288804	1.282381	0.809901	2.030497
PRB1	0.289263	0.779254	0.491294	1.235994
USP34	0.289735	0.777843	0.488542	1.238461
PRH1	0.290099	0.780955	0.493964	1.234685
ZNF280D	0.290119	0.774398	0.482216	1.243619
CFAP44	0.290436	1.300933	0.798782	2.118757
F2RL2	0.290535	0.785653	0.502286	1.228883
TNKS	0.290619	0.7677	0.470173	1.253502
LSM6	0.290779	1.286619	0.806098	2.053582
TRDMT1	0.291508	0.779145	0.490043	1.238804
C8orf37	0.292382	0.764858	0.464376	1.259772
KCNK6	0.293028	1.305337	0.794365	2.144989
NUP153	0.293123	0.76224	0.459485	1.264479
PLEKHG7	0.294278	1.274878	0.809784	2.007096
CCDC82	0.294928	0.783616	0.496521	1.236715

NHEJ1	0.295249	1.271368	0.810993	1.993081
CHD1L	0.295935	1.29731	0.796272	2.113616
ZNF638	0.297363	0.77709	0.483585	1.248734
NUP107	0.298275	1.312886	0.786047	2.192834
FUS	0.298388	1.272774	0.807829	2.005316
ZNF37A	0.298631	1.282333	0.80231	2.049557
KRIT1	0.299335	0.785839	0.49851	1.238776
MTAP	0.299899	1.276904	0.804355	2.02707
RC3H1	0.30134	0.786947	0.499603	1.239555
DNAJB8	0.301363	1.268826	0.807811	1.992943
STK16	0.301541	1.28363	0.799316	2.061396
OCIAD1	0.301613	1.286641	0.79758	2.075587
SMN1	0.302188	0.765794	0.461281	1.27133
UBE2D2	0.30434	1.2672	0.806499	1.99107
EFNA1	0.304735	0.78135	0.48777	1.25163
MGA	0.304838	0.774379	0.475167	1.262006
UBXN2A	0.30499	0.781261	0.487487	1.252071
DTWD2	0.305563	0.783859	0.49195	1.248979
CEP295	0.306379	0.785405	0.494395	1.247708
OR13C8	0.307131	0.775546	0.476153	1.26319
CCDC73	0.307587	1.264079	0.805877	1.982803
SGPP2	0.308004	1.267963	0.803287	2.001439
KIAA2026	0.308207	0.783867	0.49071	1.252161
PDE6C	0.308212	0.786717	0.495942	1.247977
ERVMER34-1	0.308275	1.266834	0.803743	1.996744
HACD1	0.308478	0.789581	0.501113	1.244107
SCGB3A2	0.308548	0.7885	0.499076	1.245767
SIRT2	0.309512	1.267059	0.802675	2.000111
ZNF708	0.309835	0.785442	0.492825	1.251801
GIMAP1	0.309987	1.282601	0.793265	2.073791
ANKRD36C	0.310036	0.787307	0.496166	1.249283
ABRA	0.310043	1.268151	0.80163	2.006171
IL31	0.310207	0.792094	0.504979	1.242453
MRPL42	0.310565	1.272419	0.798725	2.027042
CYB5R1	0.310662	1.276211	0.796436	2.045004
SLC10A1	0.310727	1.264621	0.803196	1.991129
DCAF16	0.312383	0.770841	0.465226	1.277219
DNAJB14	0.313419	0.790655	0.50078	1.248324
CCDC89	0.313798	0.794114	0.507078	1.243627
VEGFD	0.314675	0.791768	0.502264	1.248139
CENPQ	0.314945	1.29216	0.783798	2.130239
ASB14	0.314968	0.7938	0.505939	1.245445
C6orf229	0.315251	1.26421	0.800027	1.997716
TAF1D	0.317006	1.298276	0.778595	2.164822

SPRTN	0.317141	1.265735	0.797673	2.008449
SMIM18	0.317657	0.796328	0.509445	1.244764
USMG5	0.317885	1.260076	0.800551	1.983372
NKIRAS1	0.318639	0.788462	0.494218	1.25789
ATL2	0.320411	0.778927	0.475847	1.275046
TAS2R50	0.322503	0.790705	0.496559	1.259096
NEURL1B	0.322789	1.257757	0.798303	1.981644
AC008758.6	0.32531	0.796418	0.506	1.25352
RPL17	0.325862	0.794145	0.501428	1.25774
SLC25A48	0.326098	0.797471	0.507632	1.252797
SPDYE5	0.328611	0.799329	0.509995	1.25281
BDP1	0.328922	0.797637	0.506609	1.255851
LCORL	0.330144	0.799601	0.50979	1.254167
ATG9A	0.331184	0.797715	0.505681	1.258401
KLRG2	0.333963	0.80125	0.511154	1.255986
CAAP1	0.334202	1.264949	0.785063	2.038176
INPPL1	0.335416	1.267925	0.782217	2.055226
KIAA0895	0.336135	0.792052	0.492537	1.273703
RPS6KA4	0.336618	1.248164	0.794143	1.961757
ZNF100	0.337019	0.787447	0.483459	1.282576
PMM2	0.337366	0.8031	0.513121	1.256955
PPP1R12B	0.337501	0.798264	0.503711	1.265061
PPP1CA	0.337796	1.261956	0.784211	2.030745
PAIP1	0.339188	0.791611	0.490224	1.278291
ARHGAP19-SLIT1	0.33927	0.801291	0.508701	1.26217
LYRM9	0.340123	1.257812	0.78513	2.015067
OAZ1	0.340758	1.257336	0.784957	2.013986
COLGALT1	0.341461	1.254772	0.786119	2.002817
DEPTOR	0.34161	0.779771	0.466997	1.302027
UQCRC1	0.342023	1.248156	0.790117	1.971726
ZNF713	0.342357	0.795157	0.495417	1.276247
RAB1B	0.342685	1.272556	0.773499	2.0936
ZNF286A	0.342731	1.244404	0.792125	1.954922
KLHL3	0.343125	1.259458	0.781734	2.029123
DHX16	0.344207	1.242097	0.792604	1.946503
POLR2E	0.344743	1.249658	0.78706	1.984151
OR52B6	0.344957	0.799001	0.501536	1.272896
GTPBP4	0.344985	1.242813	0.79154	1.951366
DNAH7	0.345069	0.804648	0.512464	1.263424
TMPRSS2	0.345335	0.804829	0.512691	1.263432
CLDN24	0.345466	0.80212	0.507337	1.268185
GSK3A	0.345742	1.258079	0.78063	2.027547
TMEM132A	0.347037	1.292829	0.756933	2.208129
PUM3	0.348473	1.246137	0.786656	1.973999

FKTN	0.348644	1.272916	0.768489	2.108442
GPSM3	0.348727	1.258548	0.778004	2.035906
PCF11	0.348984	1.24349	0.788102	1.962015
TTC21B	0.351498	0.805631	0.511301	1.26939
MRAP	0.3523	0.805838	0.511322	1.269991
SMIM26	0.353001	1.24208	0.786088	1.962583
ZNF605	0.353185	0.793704	0.48734	1.292662
LHX9	0.353575	0.80806	0.515104	1.267632
TLK2	0.353642	1.257749	0.774722	2.041935
C1D	0.354223	1.247705	0.781226	1.992725
TXLNG	0.355564	0.797923	0.494276	1.288108
SNRPN	0.355686	1.247087	0.780546	1.992485
TTC19	0.355801	0.805182	0.508333	1.275381
FBXW5	0.35619	1.236917	0.787378	1.943112
ACYP1	0.356246	0.800837	0.499599	1.28371
MAP3K4	0.356509	0.805585	0.508784	1.275526
ANKAR	0.356881	0.808862	0.515102	1.270153
ADAT2	0.358684	1.25123	0.775337	2.019219
RAB22A	0.358945	0.809808	0.515991	1.270932
E2F4	0.360698	1.238306	0.783028	1.958297
ZNF518A	0.360965	0.80269	0.500906	1.286292
TCEAL1	0.362072	1.265881	0.762435	2.10176
SFPQ	0.36285	0.804564	0.503667	1.285218
VPS13D	0.363514	0.80983	0.513817	1.27638
PLEKHA3	0.364615	0.807157	0.507942	1.282632
TBCA	0.364999	1.241385	0.777554	1.981901
MRRF	0.365037	0.805271	0.50399	1.286654
B3GALT2	0.365577	0.811614	0.516394	1.27561
BAZ2B	0.365598	0.809248	0.511632	1.279986
ARHGAP31	0.365873	1.259689	0.763726	2.077729
CNTF	0.365954	0.810127	0.513221	1.278798
SPINK7	0.366014	0.806404	0.505756	1.285772
SNX3	0.36681	1.2546	0.766607	2.053231
RPGR	0.366839	0.806182	0.504909	1.287221
KANSL1	0.369297	0.812997	0.517374	1.277536
GGT6	0.36968	0.813075	0.517346	1.277853
RSRC2	0.371788	0.814044	0.518281	1.278588
SERTAD2	0.37201	0.812733	0.515511	1.281321
CEP162	0.372377	0.813154	0.516184	1.280976
C19orf18	0.3724	1.238447	0.774101	1.981333
DNAH9	0.372603	0.815442	0.520733	1.276943
INSL6	0.37306	0.806937	0.503333	1.293671
TAS2R20	0.373753	0.805335	0.499796	1.297658
TSHZ2	0.374177	0.812058	0.513077	1.285262

ZNF84	0.376518	0.79338	0.475005	1.325146
KIF27	0.376712	0.798775	0.485375	1.314533
RNPEPL1	0.37683	1.241801	0.768185	2.007422
BCLAF1	0.377616	0.813525	0.514359	1.286695
ZNF644	0.379282	0.813736	0.513964	1.288352
NOLC1	0.379745	1.225247	0.778688	1.927898
ZNHIT6	0.379884	1.244256	0.763957	2.026518
KIR2DL4	0.380133	1.232075	0.773085	1.963573
MINK1	0.381046	1.238952	0.767091	2.001069
PRB2	0.381876	0.814742	0.514734	1.289608
RASGRP4	0.382022	1.235708	0.768837	1.986085
BAG6	0.38214	1.226296	0.776085	1.937675
SCLT1	0.38285	0.816189	0.517219	1.287972
ZNF213	0.383367	1.22429	0.776755	1.929677
TRIM21	0.383627	1.23392	0.768995	1.979932
LEKR1	0.383901	1.228699	0.772874	1.95336
ILK	0.384665	1.238291	0.764801	2.004921
SLITRK2	0.384975	0.818383	0.520696	1.286261
C9orf131	0.385172	0.820982	0.526003	1.281385
FBXL4	0.386213	0.801533	0.485958	1.322036
APLF	0.387001	0.813814	0.510274	1.297915
CEBPZOS	0.387121	1.222429	0.775449	1.927057
CARNMT1	0.387313	1.238335	0.762709	2.010562
EFCAB13	0.387414	0.809329	0.500939	1.307571
KIAA0408	0.387764	0.816927	0.516297	1.29261
11-Sep	0.38915	1.229173	0.768524	1.965931
ZNF782	0.389204	0.817073	0.515878	1.294119
SMPD1	0.390048	1.23592	0.762478	2.003336
PAXBP1	0.391127	0.813052	0.506636	1.304789
POLR3E	0.391702	0.82084	0.52247	1.289603
TSR3	0.39195	1.224625	0.77006	1.947519
BLZF1	0.392177	0.810407	0.500706	1.311665
FAM60A	0.392538	0.811531	0.502813	1.309798
GNPNAT1	0.395969	1.224037	0.7675	1.952137
MYCBP2	0.39675	0.823088	0.524675	1.291227
EBPL	0.397749	0.809065	0.495127	1.322058
ZNF326	0.397908	1.2266	0.763917	1.969517
IFT74	0.397997	0.820573	0.518755	1.297994
COMMD6	0.400176	1.218331	0.769061	1.930053
WDR33	0.401635	0.813281	0.501745	1.318252
ZFC3H1	0.403228	0.823502	0.522293	1.298422
SREK1	0.40518	0.818506	0.51077	1.311652
MLX	0.405198	1.222025	0.762141	1.959409
WNT4	0.405355	0.827044	0.528774	1.29356

CCNG1	0.405669	1.210647	0.771512	1.899731
C15orf41	0.406451	1.210063	0.771439	1.898081
RNF125	0.406621	0.822866	0.519221	1.304086
OR13C3	0.407129	0.82373	0.520798	1.302869
ZNF577	0.407632	0.816427	0.505166	1.319474
TNRC6A	0.407879	0.82657	0.526484	1.297701
DDX10	0.408557	0.825163	0.523125	1.301587
METTL21A	0.409473	1.209978	0.769271	1.903163
GOLPH3	0.409603	0.828133	0.528972	1.296484
ZNF738	0.410016	0.819594	0.510565	1.315667
SH3D19	0.410928	0.827941	0.527886	1.298549
SNURF	0.410934	0.821541	0.514203	1.312574
ALX4	0.411634	0.827146	0.525815	1.301163
ROPN1B	0.413569	0.825615	0.521533	1.306991
AKAP5	0.414565	0.826101	0.522067	1.307195
ZNF430	0.414987	1.217499	0.758518	1.954212
ZNF280C	0.415838	0.817351	0.502825	1.328618
CC2D2A	0.415945	0.820807	0.510054	1.320888
VTA1	0.418564	1.210638	0.761858	1.923776
XRN1	0.418583	0.827069	0.522085	1.310215
NPM1	0.418752	0.820684	0.508328	1.324976
VMA21	0.419038	1.235927	0.739386	2.065924
MCTS1	0.420577	1.213698	0.757583	1.944425
ANGEL2	0.422086	0.829652	0.525883	1.308888
RRP8	0.423519	0.824828	0.514686	1.321856
EXOSC6	0.423903	1.205782	0.762222	1.907463
HSPB11	0.42535	1.213612	0.753976	1.953451
CHD9	0.425954	0.817801	0.498425	1.341826
TMEM68	0.426102	1.218122	0.749317	1.980231
SASS6	0.426639	1.208382	0.757756	1.926988
MTRNR2L13	0.426854	0.834334	0.533719	1.304268
ETFRF1	0.427919	0.820716	0.503557	1.337633
ZNF33A	0.428506	0.830877	0.525232	1.314384
RFX4	0.428862	0.833977	0.53189	1.307634
CCDC85C	0.428922	0.83483	0.533753	1.305737
ASB9	0.430192	0.833272	0.529636	1.31098
CREB1	0.430241	0.832532	0.527974	1.312772
TFAP4	0.430813	0.82793	0.517572	1.324391
ABCA12	0.43356	0.823655	0.506843	1.338495
GLRA2	0.433712	0.833996	0.529407	1.313828
LEPROTL1	0.433757	0.830049	0.520657	1.323293
ZNF736	0.434116	0.831701	0.524106	1.319819
ZNF780A	0.435341	0.836628	0.534435	1.309694
CTDSPL2	0.435636	0.831471	0.522796	1.322395

GSX1	0.436473	0.834617	0.529342	1.315946
MED8	0.437795	1.202308	0.754914	1.914849
MACF1	0.438222	0.82731	0.512279	1.336073
ZNF286B	0.438722	1.194326	0.761934	1.8721
TAS2R4	0.438895	0.829924	0.517653	1.330571
ERVW-1	0.439026	0.837112	0.533596	1.313274
CAV3	0.439466	1.195001	0.760716	1.877216
EGFL7	0.439734	0.831172	0.519961	1.328651
RASA1	0.439908	0.836975	0.532823	1.314747
ASPN	0.440249	0.837916	0.534765	1.312918
WDR75	0.440576	1.204567	0.7506	1.933098
APC	0.44137	0.835335	0.528365	1.32065
KIF1C	0.443595	0.827094	0.50891	1.344217
ZBED2	0.444874	0.832215	0.519523	1.333111
MTFR1	0.445646	0.833647	0.522304	1.330581
PPHLN1	0.446396	1.199326	0.75119	1.914806
AP002495.1	0.447144	0.839293	0.534248	1.318514
GPRC5A	0.447238	0.841497	0.539235	1.313189
ENAM	0.447455	1.189305	0.760385	1.860173
FOXF2	0.448046	1.19475	0.754466	1.89197
RGS20	0.449854	0.840915	0.536513	1.318026
KDSR	0.450461	0.823678	0.497694	1.363177
PPP1R18	0.451085	1.198298	0.748575	1.918204
EXTL3	0.451951	1.191801	0.754458	1.882663
RSBN1L	0.45198	0.838023	0.528771	1.328143
ANGPTL7	0.452001	0.842704	0.539487	1.316344
FAM47E-STBD1	0.452091	1.1972	0.748894	1.913872
PRKCI	0.452646	1.214955	0.730933	2.019493
RAB28	0.452705	0.840073	0.533059	1.323909
DNAL4	0.456859	0.840681	0.532218	1.327922
TYW1	0.461329	0.832059	0.510171	1.35704
CCNH	0.463489	0.842206	0.532141	1.332939
GK3P	0.464232	0.843331	0.534351	1.330975
GATAD2B	0.464243	1.19589	0.740687	1.930848
RGPD4	0.467028	1.186979	0.747888	1.883863
ZNF138	0.467037	0.808986	0.456939	1.432265
MNS1	0.467609	1.186421	0.748035	1.881723
IL16	0.468264	0.844885	0.535779	1.332322
BCAT1	0.469468	1.186785	0.746199	1.887512
URI1	0.469479	0.827853	0.496175	1.381247
HSD11B2	0.470956	0.844716	0.5339	1.336476
ZNF26	0.471358	0.840603	0.524074	1.34831
TADA1	0.471405	0.835216	0.511657	1.363384
CORO1C	0.471533	1.20111	0.729358	1.977992

C5orf58	0.472554	0.848645	0.542318	1.327999
ADGRG1	0.472672	1.181282	0.749693	1.861332
SETD9	0.472854	0.837247	0.515486	1.359848
MAPK8	0.473251	0.839304	0.520002	1.354669
SLC35C1	0.473397	1.190135	0.739501	1.915372
AHI1	0.473471	0.845683	0.534787	1.337316
ASPM	0.474183	0.847728	0.53924	1.332695
LPP	0.474457	1.179609	0.750165	1.854896
LRRN3	0.474662	0.846742	0.536635	1.336054
PRELID2	0.47638	0.844678	0.530797	1.34417
FTCDNL1	0.476686	1.176542	0.751873	1.841071
PGBD4	0.47698	1.179198	0.748679	1.857283
ZNF573	0.477384	0.832027	0.500998	1.38178
ABHD18	0.48045	0.846982	0.533976	1.343465
PCDHGA7	0.481027	0.844327	0.527354	1.35182
DPY19L4	0.481335	0.835288	0.506142	1.378476
GPR135	0.482121	1.178967	0.744947	1.865854
MTBP	0.483616	0.846552	0.531168	1.349197
TNFAIP1	0.484351	0.851786	0.543338	1.335338
MRPL53	0.485584	1.172685	0.749448	1.834937
1-Dec	0.485587	1.176712	0.744808	1.859071
ASXL2	0.486007	0.852225	0.543476	1.336372
EMSY	0.486125	0.849033	0.535689	1.345663
ZNF639	0.487367	0.844105	0.523213	1.361803
OR2AE1	0.487912	1.173484	0.746723	1.844145
OR5B21	0.488266	0.847521	0.53084	1.353123
WNT9A	0.48903	0.850735	0.538154	1.344875
NR1D2	0.489087	0.848135	0.531846	1.352522
CCDC22	0.490098	1.182066	0.7351	1.900804
FADD	0.490472	1.176659	0.741032	1.868374
REN	0.490586	1.170406	0.748255	1.830725
HIGD1C	0.491149	0.852981	0.542424	1.341344
N4BP2	0.491459	0.850474	0.536139	1.349101
PDE12	0.492321	1.171738	0.745339	1.842072
PLCG1	0.492835	0.84903	0.531854	1.355357
RPP40	0.495415	1.174229	0.739967	1.863344
LRRC18	0.496372	0.855189	0.544886	1.342206
C7orf73	0.497063	1.172095	0.741196	1.8535
LEAP2	0.498338	1.174932	0.736806	1.87358
EPN1	0.498362	1.180183	0.730587	1.906458
ZNF267	0.498763	1.167351	0.745567	1.827748
GPALPP1	0.499049	1.190027	0.718599	1.970729
DNAJC2	0.499766	0.855128	0.542789	1.347196
ALG13	0.50017	0.849807	0.529485	1.363912

DNAH11	0.500563	0.843456	0.51396	1.384191
EIF4E	0.500696	1.172819	0.737444	1.865232
MAPKAPK5	0.501578	0.840058	0.505303	1.396584
C4BPB	0.502406	1.177294	0.730706	1.896825
HDAC8	0.502609	0.853744	0.537721	1.355497
FBXL2	0.502908	0.856721	0.544941	1.34688
DST	0.50304	0.857207	0.546081	1.345596
TOMM5	0.505269	1.17088	0.736132	1.862383
GAL	0.50771	1.163564	0.743236	1.821605
RNF115	0.507976	0.851729	0.529597	1.369802
PCBP1	0.508217	1.17034	0.734421	1.865001
DNAJC27	0.50899	1.183833	0.71743	1.953445
MLLT10	0.509284	0.852515	0.530758	1.369327
ANKRD16	0.512964	1.186767	0.710524	1.982222
CALM3	0.513377	1.165802	0.735923	1.846788
CD34	0.514431	1.171927	0.727387	1.888148
HNRNPDL	0.515959	0.855687	0.534677	1.369424
UCP1	0.516064	1.16297	0.737365	1.834233
ANKDD1B	0.516512	0.862326	0.551213	1.349034
TMEM260	0.517359	0.852294	0.525364	1.382671
UBE2G1	0.517929	0.86053	0.545771	1.356815
HIVEP1	0.51798	1.159249	0.740634	1.814472
MRPS18C	0.518492	1.177018	0.717658	1.930407
ZZZ3	0.518777	0.858782	0.540809	1.363708
TBC1D19	0.518874	0.853132	0.526528	1.382328
NIPBL	0.519164	0.861165	0.546664	1.3566
KATNAL2	0.520436	0.863797	0.552695	1.350011
SPATA24	0.522137	1.160514	0.735663	1.830719
TICAM1	0.523847	1.171926	0.719524	1.908776
SYNJ2	0.524198	1.159882	0.734828	1.830805
JMJD1C	0.524318	0.861413	0.544218	1.363484
RNF138	0.524603	0.862556	0.546999	1.360155
LRCH3	0.524648	0.860156	0.540786	1.368134
INVS	0.525257	0.856745	0.531715	1.38046
PIKFYVE	0.526901	0.859098	0.536705	1.375149
FRA10AC1	0.527434	1.161153	0.730518	1.845646
PGGT1B	0.528742	1.159241	0.731985	1.835884
NGLY1	0.528827	0.854183	0.523039	1.39498
ADNP2	0.529044	0.863021	0.54552	1.365311
MYO3B	0.529488	1.153549	0.739037	1.800552
VHL	0.530143	1.156295	0.734797	1.819576
GPATCH2	0.535187	0.867386	0.553249	1.359891
WDR43	0.538091	0.863622	0.541532	1.377286
ZNF804A	0.538466	0.868914	0.555318	1.359601

HDAC2	0.538492	0.857863	0.52633	1.398227
SETDB2	0.539029	1.161006	0.721058	1.869385
CNNM2	0.539891	0.869427	0.55582	1.359979
SUGT1	0.540157	0.861723	0.53527	1.387274
MRPS30	0.540343	1.166546	0.712439	1.910101
SERPIND1	0.540414	1.151965	0.732381	1.81193
RFTN2	0.540967	0.868492	0.552653	1.364833
HNF1B	0.541921	1.150265	0.733538	1.803737
PKD2L2	0.544171	0.867607	0.548293	1.37288
ANKRD36	0.544951	0.863005	0.535597	1.390556
ANKS1B	0.545231	0.869575	0.552919	1.367582
TMPRSS11D	0.54655	0.868657	0.549622	1.372881
PCDHGA8	0.547309	0.867878	0.54705	1.37686
STUB1	0.548621	1.149011	0.729814	1.808989
NDUF8F8	0.550858	1.147602	0.73	1.804096
MAX	0.551491	0.868396	0.545796	1.381674
NCOA3	0.55269	0.86945	0.547882	1.379757
AC020636.2	0.553056	0.871739	0.553881	1.372009
DPYSL2	0.553244	1.156274	0.715486	1.868616
SLC38A9	0.553439	0.869916	0.548668	1.379255
TMEM170A	0.554387	1.156435	0.714266	1.872331
MPHOSPH9	0.55591	1.172918	0.689831	1.994311
MSL2	0.555951	0.869649	0.546333	1.384299
NCOA7	0.556223	0.868775	0.543785	1.387992
ST7L	0.557453	0.870158	0.546754	1.384856
AC008764.1	0.557547	1.142813	0.731527	1.785335
ZNF148	0.557859	0.873678	0.55616	1.372469
HDAC9	0.558571	1.151291	0.718093	1.845821
RBM4B	0.559009	0.869039	0.542698	1.391618
USP37	0.559227	1.155011	0.712094	1.873418
CAPN2	0.559692	1.159603	0.705052	1.907207
ECT2L	0.560063	0.874507	0.557051	1.372878
ARHGAP30	0.560376	1.158292	0.706327	1.899461
ZDHHC21	0.560596	0.872225	0.550393	1.382244
HIST1H3J	0.560932	0.874559	0.556638	1.374058
SDHAF4	0.561139	1.141707	0.730211	1.785094
GCFC2	0.561341	1.143781	0.726903	1.799738
MAP2K5	0.562008	0.874886	0.556857	1.374546
REV1	0.562684	0.86429	0.527465	1.416201
PTS	0.563016	0.872955	0.55084	1.383432
PLD5	0.564172	1.141653	0.727755	1.790948
TIAM2	0.565106	1.142553	0.725589	1.799127
GCC2	0.566068	0.867059	0.532669	1.411368
REC114	0.566705	1.142194	0.724784	1.799992

FAM185A	0.568174	1.144496	0.719995	1.819276
OR13C2	0.568766	1.153299	0.706161	1.883564
ODF2L	0.569037	0.868539	0.53471	1.410783
TTC37	0.569789	1.147019	0.714735	1.840755
KIF21A	0.570086	0.868003	0.532538	1.414787
OR2B2	0.572852	1.143066	0.718151	1.819396
PIGM	0.573223	1.146913	0.711872	1.847817
UBASH3B	0.573347	1.139483	0.72333	1.79506
MAST4	0.573952	1.159841	0.691681	1.944873
COG4	0.574182	1.146503	0.711655	1.84706
YTHDF2	0.574998	1.143358	0.71582	1.826252
RAD51B	0.575101	1.138292	0.723708	1.790375
SIVA1	0.575469	0.877375	0.555065	1.386843
TATDN1	0.576295	0.876412	0.551774	1.392051
LRP6	0.577301	0.87792	0.555398	1.387733
SNX17	0.577428	1.142048	0.715745	1.82226
C4orf46	0.579057	0.870271	0.532666	1.42185
AC006030.1	0.579473	0.879083	0.557279	1.386716
SLC25A32	0.58115	1.13473	0.724242	1.777874
CCDC38	0.58324	0.881315	0.561209	1.384006
C8orf59	0.583474	1.133651	0.724007	1.775071
MTRNR2L5	0.584288	0.881218	0.560219	1.386145
TXNL1	0.584701	0.881668	0.561252	1.385007
SUV39H2	0.58565	1.136516	0.717408	1.800465
SUMO2	0.586391	1.140692	0.709946	1.832786
PPP1R9B	0.58654	0.870922	0.529266	1.433124
FAM228A	0.587922	0.881566	0.55877	1.39084
MCM9	0.590511	0.883655	0.563149	1.386572
DNAH6	0.592265	1.136977	0.710753	1.818798
RARRES1	0.59528	0.885502	0.565374	1.386895
YLPM1	0.595534	1.145776	0.693249	1.893695
UGT8	0.597041	1.131758	0.715265	1.790771
AKAP14	0.597621	0.886749	0.567506	1.385579
FMO1	0.598214	0.88156	0.551604	1.408888
GLS	0.598397	0.882451	0.554112	1.405349
SUB1	0.599166	0.883717	0.557333	1.401236
PPP1R12C	0.59963	0.879924	0.545779	1.418643
PCDHGB3	0.599959	0.882991	0.55461	1.405802
RTTN	0.600064	0.879046	0.542897	1.423332
TM7SF3	0.601243	1.150215	0.680517	1.9441
LMOD2	0.601656	0.887071	0.565671	1.391082
PHF2	0.60167	0.887717	0.567623	1.388318
CENPX	0.602465	1.12697	0.718735	1.767081
ITGB3BP	0.603428	1.13534	0.703296	1.832795

MPLKIP	0.604247	1.132901	0.706748	1.816015
SLC16A4	0.605137	0.886746	0.562231	1.398569
NAIF1	0.608051	1.126837	0.713947	1.778512
AAMDC	0.608548	0.887625	0.562478	1.400727
ZXDB	0.610278	0.885596	0.555047	1.412997
STXBP4	0.612002	1.128397	0.707524	1.799627
CFAP36	0.614042	0.884968	0.550386	1.422944
NPR3	0.614545	0.880176	0.535597	1.446442
SDHC	0.616467	1.131726	0.697336	1.83671
PTBP2	0.617955	0.887834	0.556272	1.417019
TMED7-TICAM2	0.619246	0.887728	0.554988	1.419961
LIPI	0.622493	1.120154	0.713016	1.759773
HNRNPH1	0.623593	0.886934	0.549268	1.432181
COG5	0.624321	1.120221	0.711191	1.764496
LYSMD1	0.624577	1.121262	0.708971	1.773314
DOK5	0.625367	1.117839	0.714785	1.748169
EEA1	0.626259	0.893779	0.568792	1.404453
MAPKBP1	0.629797	0.895207	0.570733	1.40415
EFCAB5	0.630803	0.894737	0.568461	1.408283
ZNF654	0.631574	1.117883	0.708893	1.762836
TMEM63B	0.632043	1.121368	0.70166	1.79213
RPL35A	0.632399	0.889263	0.549783	1.438366
GOSR1	0.632736	1.128543	0.68726	1.853169
GLI2	0.63357	0.8949	0.566889	1.412703
MOB4	0.63453	0.896867	0.572558	1.404871
CAV1	0.636941	1.115144	0.709223	1.75339
SMAD2	0.637708	1.12035	0.698133	1.797915
RSBN1	0.637751	0.887613	0.540377	1.457976
TTLL6	0.640048	1.118909	0.698689	1.791864
BMT2	0.640088	0.898184	0.572642	1.408793
SETD2	0.640231	0.898389	0.573211	1.408037
CSTF3	0.64056	1.128146	0.680069	1.871446
ZNF724	0.641329	0.894107	0.558299	1.431897
SCML2	0.642851	0.890465	0.545337	1.454014
USP53	0.643461	0.891548	0.548324	1.449613
CANT1	0.64393	0.897856	0.568569	1.417849
LAMC3	0.643974	0.896196	0.563048	1.426463
PTRH2	0.644668	0.900068	0.575374	1.407991
ANAPC11	0.645276	1.111374	0.708926	1.742287
SPATA1	0.646419	0.900639	0.575929	1.40842
COX18	0.647188	1.113914	0.701796	1.768044
TRMT61B	0.647314	0.885681	0.526513	1.489862
LCTL	0.650129	1.118765	0.688866	1.816951
DDX21	0.650222	1.110636	0.705662	1.748021

CD1A	0.651111	0.894697	0.552374	1.449166
TBCK	0.651756	0.896062	0.55636	1.443178
GPR89A	0.655326	1.112349	0.696954	1.775325
KIAA0825	0.656126	0.901701	0.571819	1.421892
LINC01314	0.65707	1.108266	0.703968	1.744758
RHOBTB1	0.660497	1.112258	0.691867	1.788087
AP3D1	0.66093	0.901897	0.568566	1.430648
C11orf65	0.661266	0.904899	0.578718	1.414924
ARHGAP45	0.662334	0.890456	0.52901	1.498862
ZBTB49	0.663655	1.103713	0.707463	1.721903
TTC30B	0.66567	0.906498	0.580744	1.414974
GVQW1	0.668983	0.896957	0.544835	1.476653
RAPGEF4	0.670929	0.907778	0.58095	1.418473
USP6NL	0.674241	1.103202	0.697847	1.744015
EFHD2	0.674351	1.118908	0.662508	1.889721
CNPPD1	0.674372	1.104809	0.694	1.758794
IMMP2L	0.674498	0.90584	0.570981	1.437082
TTF2	0.678317	1.106351	0.686239	1.783653
CCDC18	0.678605	0.901488	0.551974	1.472316
EPB41L2	0.6794	1.102732	0.69352	1.753402
YIPF4	0.679488	0.9083	0.575542	1.433448
POLG	0.679912	1.10033	0.698665	1.732915
EEF1AKMT2	0.681775	0.903487	0.556201	1.467615
CFAP47	0.68388	1.100762	0.693425	1.74738
ZPBP	0.690236	0.911415	0.577567	1.438234
FANK1	0.693521	0.908151	0.562414	1.466424
PPIL3	0.693831	0.912537	0.578558	1.43931
NDUFB4	0.694445	1.093488	0.700096	1.707929
ZNF562	0.695003	1.101899	0.678386	1.78981
C11orf24	0.696681	0.905564	0.549928	1.491188
MIGA1	0.696992	0.911772	0.57276	1.451441
IQCB1	0.697407	1.102747	0.673543	1.805454
KDELRL1	0.698166	1.094785	0.692719	1.730219
RAB4B	0.698312	1.101681	0.67514	1.797702
CLUAP1	0.698451	0.910266	0.565713	1.464673
LSM12	0.69866	0.909708	0.563419	1.468834
IQSEC1	0.699569	0.907161	0.553052	1.487997
C1orf74	0.699736	0.914492	0.580631	1.440321
RXRA	0.700226	0.912234	0.571509	1.456094
ACMSD	0.700983	0.911377	0.567531	1.463546
RNF43	0.702764	0.915024	0.579882	1.443862
PRRC2C	0.702819	0.915222	0.580601	1.442698
CCDC7	0.702901	0.916296	0.58472	1.4359
SACS	0.703059	1.094177	0.688831	1.738051

ELOVL1	0.703293	1.095791	0.684372	1.75454
DLEU1	0.703988	1.091591	0.694583	1.715519
GLG1	0.704352	0.90878	0.554483	1.489462
GOLGB1	0.705014	0.912404	0.567624	1.466607
TRIM33	0.705073	0.914961	0.577467	1.4497
ORC2	0.705451	1.095613	0.682365	1.75913
SLC25A33	0.707131	0.916084	0.579916	1.447125
PPARD	0.707337	1.102285	0.662976	1.832693
POLK	0.709302	0.918471	0.58733	1.436312
SMYD3	0.71024	1.098419	0.669427	1.802324
TMED6	0.712848	1.090303	0.688002	1.727844
ZNF680	0.713413	1.097435	0.668188	1.802432
PUS7	0.713739	1.092508	0.680969	1.752758
ACOT13	0.713838	1.091826	0.682705	1.746119
MED10	0.713975	1.087998	0.693044	1.708029
DCK	0.714572	1.08738	0.694079	1.703544
UTP15	0.715427	0.913511	0.561709	1.485649
SPICE1	0.716322	0.91619	0.571409	1.469007
P2RX5-TAX1BP3	0.716913	0.919119	0.582611	1.449991
LTBR	0.719116	0.917733	0.574814	1.465228
EFL1	0.719379	1.090717	0.679185	1.751604
TTC17	0.719992	0.917356	0.572415	1.470162
SNAPC3	0.720915	0.921785	0.589617	1.441083
IER3IP1	0.721062	0.915898	0.565468	1.483495
DMXL1	0.722628	0.921843	0.588164	1.444825
GRHL2	0.724551	1.08395	0.692287	1.697198
GLRA1	0.726184	0.922965	0.589308	1.445535
TSR1	0.72635	0.917931	0.568251	1.48279
GIGYF2	0.726571	1.085175	0.686324	1.715813
DNAJC25	0.729386	1.08468	0.684381	1.719115
ZNF131	0.730676	1.08614	0.678515	1.738648
XKR4	0.731228	1.083025	0.687054	1.707208
PLET1	0.731902	0.922577	0.581816	1.462916
OR52H1	0.731941	0.922363	0.58087	1.464621
VSIG10	0.731972	0.923714	0.586579	1.454616
PTCD2	0.732212	1.095249	0.650415	1.844318
PHOSPHO1	0.732619	0.921968	0.578491	1.469385
ZNF383	0.735177	1.086296	0.672429	1.754892
CCDC70	0.735608	1.079756	0.691663	1.685607
PTCD3	0.736059	0.91739	0.555676	1.51456
PIK3C3	0.736205	0.921586	0.573071	1.482052
DYNLL2	0.736488	1.081339	0.68573	1.705182
SERP2	0.737726	1.080392	0.687116	1.698764
SLC35A4	0.739591	1.083966	0.673824	1.743751

ZNF780B	0.740349	0.922613	0.57297	1.485618
PRAME	0.742825	1.081712	0.676624	1.729323
ALDH16A1	0.746402	1.079047	0.680444	1.711148
SELENON	0.74801	1.077507	0.683332	1.699058
PEPD	0.748353	1.088838	0.647351	1.831417
DDX43	0.748464	1.077263	0.683542	1.69777
NME7	0.750733	0.926285	0.577521	1.485667
ZNF624	0.751845	0.929136	0.589145	1.465332
CAPNS1	0.751997	1.081111	0.666495	1.753654
KLHL28	0.753679	0.92781	0.581041	1.481534
PAPD4	0.754003	0.930743	0.59412	1.458093
LUC7L3	0.754135	1.079561	0.668629	1.743047
EML6	0.754628	0.93037	0.591691	1.462906
KHDRBS1	0.755157	1.078667	0.670176	1.736146
NKAIN1	0.757596	1.073259	0.685046	1.681472
FRMD7	0.757858	0.93006	0.586573	1.474687
CCDC179	0.758221	1.075217	0.677566	1.706239
KCNS2	0.758627	0.931205	0.591026	1.467183
KPNA5	0.759354	0.924472	0.559339	1.527963
TSPYL6	0.759486	0.931213	0.590071	1.469581
PTPN18	0.759888	1.078707	0.663584	1.753522
INAFM2	0.761612	1.072572	0.6821	1.686574
DNAAF2	0.762622	1.076718	0.666482	1.739465
TPH1	0.764116	1.076875	0.663863	1.746837
BORCS6	0.764297	1.076266	0.66569	1.740073
PCNX4	0.764622	0.925324	0.556744	1.537915
FCF1	0.765322	1.071667	0.680275	1.688246
TMEM128	0.769389	1.068809	0.685003	1.667661
SPRYD4	0.770242	0.932309	0.58248	1.492242
ANAPC10	0.771206	0.935245	0.595611	1.468546
HORMAD2	0.772239	0.935787	0.597042	1.466727
PEX13	0.772942	1.075244	0.656874	1.760078
STYX	0.773087	0.935848	0.596315	1.468706
GNAI2	0.774213	0.933099	0.581387	1.49758
PFN4	0.774629	0.936404	0.597206	1.46826
GOLIM4	0.774964	0.93472	0.588415	1.484841
NUP62	0.775273	0.933246	0.580774	1.499634
SCAPER	0.77614	0.935757	0.592104	1.478864
NOXRED1	0.778223	0.9333	0.577288	1.508864
WDR35	0.778788	1.070077	0.66707	1.716561
AC010255.3	0.7794	0.938262	0.600713	1.465485
FAM208B	0.780105	1.06727	0.675737	1.685665
OVCH2	0.781154	0.935854	0.58625	1.49394
GNPDA2	0.781842	0.936466	0.588466	1.490264

HIST1H3B	0.78269	1.064963	0.680914	1.665625
DDX50	0.782755	0.936949	0.589746	1.488561
TEX38	0.783078	0.93888	0.599264	1.470964
GPR87	0.784705	1.066019	0.673864	1.686387
RFX7	0.785049	1.068629	0.663247	1.721782
SLC6A20	0.785609	0.939321	0.598318	1.474674
RPS27	0.785755	1.065304	0.675118	1.680998
RBAK	0.786708	0.938031	0.59017	1.49093
FAM71F2	0.788025	1.065094	0.67258	1.686679
ZNF217	0.788074	0.940178	0.599625	1.474146
CCDC125	0.788994	0.936605	0.579752	1.513111
FAM47E	0.79063	1.0625	0.679138	1.662263
SLC20A2	0.792242	0.936912	0.576913	1.521554
ACPT	0.792558	1.062386	0.67672	1.667845
ADAM30	0.794442	1.062785	0.672216	1.680282
INSM2	0.79447	0.941895	0.600356	1.477734
EIF5	0.794717	1.06198	0.675131	1.67049
ACTN3	0.796658	0.940969	0.592351	1.494759
CBX8	0.799011	1.064303	0.658771	1.719475
RUBCN	0.799047	1.066963	0.647788	1.75738
CYB561D2	0.799304	1.062251	0.666876	1.692037
FAM71F1	0.799708	1.060389	0.674143	1.667932
C1QTNF7	0.801528	1.061211	0.667764	1.686475
MEGF11	0.801836	0.94365	0.599923	1.484315
TMPRSS11A	0.80298	1.061826	0.6628	1.701079
PDE8B	0.803478	1.059005	0.674213	1.663409
AP2A1	0.803997	1.061767	0.661402	1.704486
AP001931.1	0.806481	0.943846	0.594414	1.498697
PPP3CB	0.807399	1.059037	0.667775	1.679548
RANBP2	0.807428	1.058577	0.669775	1.673076
ZNF165	0.810487	1.059603	0.660144	1.700777
DTD2	0.810611	0.944263	0.590719	1.509403
TAS2R38	0.81193	1.05625	0.672966	1.657831
MROH2B	0.812159	1.055526	0.675938	1.648281
MITF	0.813566	1.05597	0.671557	1.66043
SNAPC1	0.813767	1.057132	0.665843	1.678365
NUP210L	0.814062	0.946565	0.598958	1.495906
SLX4IP	0.814244	1.056613	0.667441	1.672703
SRSF6	0.815751	0.942434	0.572356	1.5518
MAP3K11	0.818144	1.05793	0.65461	1.709746
TWISTNB	0.819586	1.055878	0.661748	1.684748
SRSF9	0.819854	0.948973	0.604629	1.489423
CLNS1A	0.822611	0.947551	0.59163	1.517592
MTRNR2L6	0.822715	1.052562	0.672408	1.64764

KATNBL1	0.823268	0.944398	0.571649	1.560203
KLHL34	0.823992	0.950631	0.608483	1.485168
AKT3	0.825881	1.055886	0.650435	1.714075
MED23	0.829005	0.951291	0.604657	1.49664
CCNK	0.830968	0.952156	0.607029	1.493506
IPO4	0.831092	1.049761	0.671887	1.640156
TPTE2	0.832074	0.952888	0.609988	1.488546
CCDC148	0.832465	1.04966	0.66993	1.644628
SHISA5	0.833458	1.053301	0.649138	1.709101
RAB11FIP2	0.834594	1.049902	0.664723	1.658276
NIT2	0.836387	1.056465	0.627274	1.779315
MTRNR2L10	0.83743	0.953971	0.608206	1.496305
DBI	0.837524	1.049788	0.659805	1.670271
CDKL2	0.837601	0.953616	0.605526	1.501808
GNB2	0.839403	1.051743	0.645673	1.713195
C18orf32	0.840009	1.047975	0.664925	1.651694
MEMO1	0.840256	1.048023	0.664188	1.653676
OR1C1	0.841475	0.955349	0.610604	1.494736
ZNF808	0.841956	1.047752	0.662405	1.657272
GDPD5	0.842058	0.953143	0.5945	1.528143
GPX2	0.842282	0.955118	0.607593	1.501416
NFYB	0.842698	0.953408	0.595145	1.527337
PCDHGB2	0.84274	1.046411	0.668431	1.638129
MFN1	0.843373	0.95464	0.602354	1.512959
NAP1L1	0.844231	1.047368	0.660092	1.661861
RAB2B	0.844377	1.047166	0.660949	1.659063
OR13D1	0.844454	0.953999	0.595988	1.527066
MTRNR2L12	0.844581	0.956007	0.609697	1.499024
BICD1	0.845048	0.952182	0.582522	1.556422
HMHB1	0.847254	1.045793	0.663106	1.649333
CEP83	0.849491	1.049376	0.637897	1.726281
LAPTM4A	0.850183	0.957656	0.611267	1.500335
RARB	0.851333	1.045115	0.658794	1.657978
AEBP2	0.851851	0.957239	0.60511	1.514282
AP002360.1	0.85318	0.955466	0.589767	1.547928
MDN1	0.853262	1.047933	0.638059	1.721101
TMEM250	0.853288	1.045076	0.654943	1.667601
FAM110A	0.854671	0.957323	0.600301	1.526679
GBF1	0.854825	0.95768	0.602626	1.521923
ATF7IP	0.855878	0.959202	0.61192	1.503576
ESRP2	0.859348	0.960288	0.613412	1.503317
TFB2M	0.861308	1.043522	0.647057	1.682909
ZBTB41	0.861694	0.959885	0.605597	1.521439
TRIP11	0.861876	1.04098	0.662147	1.636555

CARF	0.86259	1.046443	0.625826	1.749756
GREB1L	0.862672	0.960736	0.610228	1.512572
KCNH1	0.862872	1.041012	0.659742	1.64262
WDR20	0.865684	0.961543	0.610406	1.514673
MYSM1	0.865821	1.04167	0.648738	1.672594
TSEN2	0.868774	0.959652	0.588745	1.564228
RENBP	0.870495	1.043406	0.626045	1.739007
EGLN1	0.870581	1.03792	0.663299	1.624121
UBA5	0.871588	1.041619	0.635304	1.707798
RSPRY1	0.872918	0.960672	0.58757	1.57069
TAF1	0.873362	0.962118	0.598403	1.546904
IDI2	0.874149	0.964516	0.616808	1.508235
TRPC5	0.874334	0.964045	0.612381	1.517655
DCAF13	0.874535	1.039157	0.645092	1.673943
MDFI	0.87499	1.038336	0.649828	1.659118
RIC8B	0.877337	1.036979	0.653904	1.644471
ZNF761	0.877948	0.962977	0.594994	1.558544
SEC61G	0.878328	1.038291	0.641789	1.679754
FOXJ3	0.87846	1.041116	0.621179	1.744945
MT-ND5	0.880402	0.965258	0.608976	1.529983
ZNF92	0.882734	1.036412	0.644387	1.666933
SDHAF3	0.882772	0.965442	0.604939	1.540783
RABEP1	0.882829	1.035979	0.647452	1.657656
PHKB	0.882915	1.034566	0.65819	1.626168
APOOL	0.883044	0.964066	0.592057	1.569822
PFDN4	0.884842	1.034155	0.656454	1.629172
NUP155	0.885855	0.965264	0.595684	1.564144
HIBCH	0.886251	1.036408	0.63495	1.691694
RAB21	0.886988	1.033532	0.655815	1.628795
EYS	0.888206	0.96805	0.615565	1.522373
DUS3L	0.888411	0.968522	0.619563	1.514027
MED11	0.888821	0.966891	0.603066	1.550206
ERCC4	0.889558	0.967742	0.609206	1.537286
SYPL1	0.890441	0.967277	0.602501	1.552903
MAGOHB	0.891856	0.969242	0.617784	1.520644
TM4SF20	0.893416	0.968828	0.609616	1.539702
IFNK	0.893455	0.969	0.611205	1.536245
HNRNPA1	0.894204	1.032263	0.646472	1.648279
RPS15A	0.895703	1.031843	0.645762	1.648751
SMAD4	0.896198	1.03284	0.635651	1.678212
SBN01	0.897131	1.032637	0.634603	1.680327
S100A16	0.897497	0.970818	0.618658	1.52344
POLR2F	0.898583	0.970665	0.614075	1.534325
LRRC34	0.898686	1.032303	0.63279	1.684049

TEX10	0.901488	1.032606	0.621285	1.716243
PRX	0.902316	1.028958	0.652257	1.623217
TIAL1	0.902909	0.970839	0.603455	1.561888
NAA35	0.903759	0.970878	0.601328	1.567537
ARL6IP6	0.904184	1.027896	0.656739	1.608813
RBM26	0.904655	0.972352	0.614584	1.538386
DNAAF4	0.904817	1.028743	0.646533	1.636902
PRB4	0.904971	0.973056	0.621437	1.523629
NUDCD2	0.905826	1.029919	0.63197	1.678453
EIF4A1	0.908504	0.974139	0.623098	1.522948
RCHY1	0.908858	1.029057	0.630185	1.680393
ZNF264	0.910579	1.026761	0.6476	1.627917
MEX3B	0.911484	1.027377	0.638149	1.654009
TM2D1	0.91174	1.025706	0.654811	1.606681
RSF1	0.912456	1.02572	0.652246	1.613043
TXLNB	0.914163	1.02598	0.643574	1.635608
PLOD1	0.914411	0.974438	0.607679	1.562551
SPRYD7	0.917431	0.976462	0.622423	1.531881
SIRT1	0.918482	0.975665	0.608703	1.563852
SMG1	0.919101	1.024274	0.644781	1.627123
GIMAP7	0.920459	1.025923	0.620801	1.695419
SHKBP1	0.924001	0.976557	0.599826	1.589898
IQCH	0.924105	1.024121	0.627173	1.672304
GRIP2	0.924126	1.022313	0.649155	1.609975
FSIP2	0.925384	0.978427	0.619882	1.544357
ARHGGEF33	0.927094	1.021023	0.65387	1.594336
TYW5	0.929675	0.978244	0.600198	1.594409
ATXN2	0.93187	0.977424	0.579072	1.64981
PHTF2	0.932043	0.980576	0.624716	1.539146
UBE3D	0.934666	1.020696	0.625442	1.665736
RGN	0.935432	1.019094	0.644889	1.610437
PLEC	0.93841	0.980844	0.600529	1.602013
SUPV3L1	0.93844	1.019423	0.625664	1.660991
CMC1	0.94006	0.982888	0.626788	1.5413
NEMF	0.941195	1.017403	0.6433	1.60906
ATP5L	0.941451	0.982736	0.617457	1.564108
GNAI1	0.942181	1.017542	0.636017	1.627931
MCCC1	0.9431	1.017671	0.629075	1.646313
C17orf62	0.943191	0.983231	0.617516	1.565534
IMP1L	0.943355	1.017577	0.629259	1.645529
METAP1	0.947801	0.983823	0.603762	1.603126
NAA15	0.951653	1.01401	0.646729	1.589872
STX17	0.953473	0.98567	0.606962	1.600668
SLC35G3	0.954609	0.987095	0.631135	1.543817

TLL5	0.955933	1.013109	0.638318	1.60796
ZNF41	0.956802	1.012568	0.64441	1.591057
FANCD20S	0.956969	0.987383	0.622563	1.565987
NOTCH2NL	0.957625	1.012651	0.636895	1.610094
SBK3	0.957629	0.987789	0.627807	1.554183
SUCNR1	0.957815	0.987868	0.628455	1.552829
KAZALD1	0.958473	0.987874	0.624113	1.563652
PROCR	0.958688	0.988221	0.631175	1.547243
PPRC1	0.960097	1.011743	0.640393	1.59843
GDAP2	0.960186	1.011542	0.644627	1.5873
MKRN20S	0.96185	0.988725	0.621274	1.573504
ABCD1	0.963598	0.988547	0.602763	1.621242
RAPGEF1	0.965354	1.010592	0.628207	1.625732
RAB40AL	0.965388	0.990122	0.632356	1.550302
EHBP1	0.967217	1.009966	0.629395	1.620653
MICAL2	0.96776	1.009858	0.627576	1.625003
RABEPK	0.969101	0.990186	0.601153	1.630978
YAF2	0.96942	0.991236	0.631992	1.554685
TMEM41B	0.969577	1.009154	0.631804	1.611879
ARC	0.969579	0.991279	0.631954	1.554914
DPH5	0.971322	0.990862	0.600717	1.634396
DTNB	0.972261	0.99145	0.611041	1.608684
COPS7A	0.974181	1.008138	0.617082	1.647015
DNTTIP2	0.976606	1.006743	0.642449	1.577607
SRSF10	0.979634	1.006106	0.630458	1.605579
RNF185	0.979681	1.00592	0.638677	1.584332
DNAH3	0.980602	1.00563	0.639603	1.581122
PCDHGA5	0.983428	0.995248	0.634937	1.560027
TP53TG5	0.984059	1.004575	0.641974	1.571981
RPL22	0.984094	1.005051	0.612447	1.649332
SRSF3	0.98601	1.004173	0.630435	1.599473
C16orf87	0.986359	0.996087	0.635473	1.56134
NUP35	0.987819	1.003611	0.631816	1.594192
FHOD3	0.989596	1.002973	0.642004	1.566897
AL049844.1	0.99019	0.997138	0.63141	1.574703
EPM2A	0.991563	1.002643	0.614752	1.635281
GLMN	0.993775	1.001901	0.621719	1.614566
SMNDC1	0.994815	0.998518	0.638357	1.561881
MT-ATP8	0.995481	1.00131	0.636566	1.575046
CDH18	0.995932	0.99884	0.639231	1.56075
ZRANB3	0.998414	1.000489	0.617461	1.621121
MSL1	0.998595	0.999596	0.637355	1.567715
ST8SIA5	0.999627	0.999891	0.631642	1.582829

Table S5. GSEA analysis results of the low- and high-risk score phenotypes in AML using c2 reference gene set.

NAME	SIZE	ES	NES	NOM p-val	FDR q-val
VALK_AML_CLUSTER_15	31	0.78345	2.0325	<0.001	0.1366
		3	43		15
KESHELAVA_MULTIPLE_DRUG_RESISTANCE	79	0.67732	1.9548	<0.001	0.1402
		9	76		3
HOFMANN_CELL_LYMPHOMA_DN	40	0.66233	2.0137	<0.001	0.1567
		4	74		46
HOFFMANN_PRE_BI_TO_LARGE_PRE_BII_LYMPHOCYTE_UP	28	0.66848	1.9730	<0.001	0.1568
		5	9		92
REACTOME_REGULATION_OF_INNATE_IMMUNE_RESPONSES_TO_CYTOSOLIC_DNA	15	0.84911	1.9566	<0.001	0.1573
		8	58		24
MIKKELSEN_IPS_LCP_WITH_H3K4ME3	165	0.55734	2.0331	<0.001	0.1683
			4		56
HOFFMANN_SMALL_PRE_BII_TO_IMMATURE_B_LYMPHOCYTE_UP	57	0.65846	2.0428	<0.001	0.1893
		5	92		39
BIOCARTA_TH1TH2_PATHWAY	21	0.67257	1.8108	<0.001	0.1982
		8	71		86
CHARAFE_BREAST_CANCER_LUMINAL_VS_MESENCHYMAL_UP	446	0.50333	1.8994	<0.001	0.1993
		3	84		7
REACTOME_LDL_CLEARANCE	19	0.75795	1.8933	<0.001	0.1997
		4	33		71
VANDESLUIS_COMMD1_TARGETS_GROUP_3_UP	79	0.54476	1.9057	<0.001	0.2024
		3	17		33
VILLANUEVA_LIVER_CANCER_KRT19_DN	67	0.53224	1.8826	<0.001	0.2034
			3		42
NIKOLSKY_BREAST_CANCER_20Q12_Q13_AMPLICON	146	0.56355	1.9060	<0.001	0.2108

		7	89		87
MIKKELSEN_ES_LCP_WITH_H3K4ME3	138	0.50806	1.9133	<0.001	0.2124
		9	29		62
REACTOME_PLASMA_LIPOPROTEIN_CLEARANCE	33	0.67984	1.9894	0.0018	0.1960
		5	23	62	21
REACTOME_SIGNALING_BY_RAS_MUTANTS	58	0.56262	1.8177	0.0018	0.1951
		6	01	8	07
NAKAMURA_METASTASIS_MODEL_UP	44	0.63841	1.9659	0.0018	0.1478
		8	82	98	69
REACTOME_TGF_BETA_RECEPTOR_SIGNALING_IN_EMT_EPITHELIAL_TO_MESENCHYMAL_TRANSITION	16	0.72289	1.7952	0.0019	0.1958
			1	05	42
MIKKELSEN_MCV6_LCP_WITH_H3K4ME3	156	0.52251	1.9178	0.0019	0.2101
		3	46	08	4
HELLER_HDAC_TARGETS_UP	313	0.51919	1.8259	0.0019	0.1993
		3		12	82
JAZAG_TGFB1_SIGNALING_VIA_SMAD4_DN	65	0.55222	1.8437	0.0019	0.1963
		5	65	19	3
GRAHAM_CML QUIESCENT VS NORMAL QUIESCENT_DN	44	0.6496	1.9093	0.0019	0.2125
			89	23	15
LU_EZH2_TARGETS_UP	280	0.63053	1.9788	0.0019	0.1981
		2	53	27	92
DELACROIX_RARG_BOUND_MEF	357	0.52240	1.8855	0.0019	0.2033
		7	27	27	94
ZHAN_MULTIPLE_MYELOMA_CD1_DN	46	0.58371	1.8037	0.0019	0.1980
		8	7	49	27
TAKEDA_TARGETS_OF_NUP98_HOXA9_FUSION_16D_UP	176	0.54170	1.9549	0.0019	0.1495
		8	05	53	21
WU_ALZHEIMER_DISEASE_DN	19	0.68368	1.8570	0.0019	0.1926
		2	85	61	38

REACTOME_GLUCONEOGENESIS	34	0.65285	1.8215	0.0019	0.2023
		9	36	61	79
NIKOLSKY_BREAST_CANCER_1Q21_AMPLICON	38	0.75075	1.9764	0.0019	0.1819
		7	81	69	21
WENG_POR_TARGETS_GLOBAL_UP	18	0.65344	1.8181	0.0019	0.1972
		4	26	69	15
HUI_MAPK14_TARGETS_UP	19	0.67282	1.8388	0.0019	0.1921
		1	81	72	37
MAGRANGEAS_MULTIPLE_MYELOMA_IGG_VS_IGA_UP	20	0.71614	1.8467	0.0019	0.1932
		4	09	76	79
PID_ALPHA_SYNUCLEIN_PATHWAY	32	0.67962	1.8857	0.0019	0.2101
		4	87	76	38
BAUS_TFF2_TARGETS_UP	31	0.57125	1.7620	0.0019	0.2037
		5	29	8	95
REACTOME_ACTIVATION_OF_IRF3_IRF7_MEDIATED_BY_TBK1_IKK_EPSILON	17	0.76151	1.7818	0.0019	0.1983
		3	4	96	67
HUMMERICH_MALIGNANT_SKIN_TUMOR_DN	19	0.69527	1.8789	0.0020	0.1995
		6	31	04	53
WENG_POR_DOSAGE	21	0.58274	1.7178	0.0020	0.2213
			97	16	54
CHARAFE_BREAST_CANCER_BASAL_VS_MESENCHYMAL_UP	121	0.44181	1.6756	0.0020	0.2448
		2	83	16	07
MOREIRA_RESPONSE_TO_TSA_UP	27	0.68761	1.7405	0.0038	0.2072
		1	91	02	98
BERTUCCI_INVASIVE_CARCINOMA_DUCTAL_VS_LOBULAR_UP	24	0.57913	1.6979	0.0038	0.2386
		9	42	02	76
LEIN_NEURON_MARKERS	64	0.51898	1.8014	0.0038	0.1951
		1	88	17	34
SANSOM_APC_TARGETS_DN	343	0.48203	1.8241	0.0038	0.1996

		4	06	17	59
OUYANG_PROSTATE_CANCER_PROGRESSION_DN	21	0.69225	1.8517	0.0038	0.1907
		3	4	24	21
ACOSTA_PROLIFERATION_INDEPENDENT_MYC_TARGETS_DN	114	0.59891	1.8639	0.0038	0.1855
		2		31	98
MOREAUX_MULTIPLE_MYELOMA_BY_TACI_UP	365	0.43917	1.7232	0.0038	0.2164
		2	33	31	77
FERRANDO_T_ALL_WITH_MLL_ENL_FUSION_UP	89	0.58595	1.8825	0.0038	0.1969
		6	26	39	91
SENGUPTA_EBNA1_ANTICORRELATED	147	0.62980	1.9722	0.0038	0.1456
		8	83	76	44
REACTOME_WNT5A_DEPENDENT_INTERNALIZATION_OF_FZD4	15	0.78350	1.8480	0.0038	0.1941
		9	81	99	15
HORTON_SREBF_TARGETS	24	0.71640	1.8119	0.0038	0.1988
		6	08	99	6
FERREIRA_EWINGS_SARCOMA_UNSTABLE_VS_STABLE_DN	93	0.58984	1.8941	0.0038	0.2059
		9	76	99	6
SAGIV_CD24_TARGETS_DN	44	0.65974	1.9291	0.0039	0.1901
		7	36	14	19
COULOUARN_TEMPORAL_TGFB1_SIGNATURE_DN	136	0.5229	1.8013	0.0039	0.1928
			96	14	53
GUTIERREZ_CHRONIC_LYMPHOCYTIC_LEUKEMIA_DN	56	0.56302	1.8392	0.0039	0.1952
		8	03	14	24
ZHAN_MULTIPLE_MYELOMA_MF_UP	48	0.58958	1.8214	0.0039	0.1991
		5	57	14	98
RICKMAN_METASTASIS_DN	257	0.63514	1.9757	0.0039	0.1654
		4	53	22	02
ISSAEVA_MLL2_TARGETS	58	0.51893	1.7775	0.0039	0.1976
		1	64	29	23

LAMB_CCND1_TARGETS	20	0.67022	1.7813	0.0039	0.1952
		9	71	76	85
KORKOLA_CORRELATED_WITH_POU5F1	31	0.58944	1.8701	0.0039	0.2098
		8	12	84	75
PARK_TRETINOIN_RESPONSE_AND_PML_RARA_FUSION	29	0.72436	1.8100	0.0040	0.1973
		4	26	98	19
OHGUCHI_LIVER_HNF4A_TARGETS_UP	48	0.51131	1.7796	0.0055	0.1972
		6	11	25	48
CHIARETTI_ACUTE_LYMPHOBLASTIC_LEUKEMIA_ZAP70	66	0.57746	1.8672	0.0055	0.2048
		4	2	66	74
KEGG_VIRAL_MYOCARDITIS	68	0.60589	1.8297	0.0056	0.1946
		6	59	82	28
HOFFMANN_IMMATURE_TO_MATURE_B_LYMPHOCYTE_UP	38	0.56863	1.7465	0.0057	0.2093
		3	62	03	49
SCHEIDEREIT_IKK_TARGETS	18	0.71779	1.7429	0.0057	0.2074
		7	11	14	03
CEBALLOS_TARGETS_OF_TP53_AND_MYC_DN	34	0.57355	1.7176	0.0057	0.2205
			69	25	1
REACTOME_NEF_MEDIATES_DOWN_MODULATION_OF_CELL_SURFACE_RECEPTORS_BY_RECRUITING_THEM_TO_CLATHRIN_ADAPTERS	21	0.74772	1.8027	0.0057	0.1946
		9	53	47	7
KASLER_HDAC7_TARGETS_1_UP	184	0.59479	1.8689	0.0057	0.2065
		3	85	47	3
STREICHER_LSM1_TARGETS_DN	19	0.61224	1.7432	0.0057	0.2083
		6	3	47	77
MULLIGHAN_NPM1_MUTATED_SIGNATURE_2_DN	75	0.60291	1.8413	0.0057	0.1983
		3	26	92	29
WANG_IMMORTALIZED_BY_HOXA9_AND_MEIS1_DN	23	0.62339	1.7763	0.0058	0.1980
		3	6	03	67
BIOCARTA_NKT_PATHWAY	26	0.68493	1.8004	0.0058	0.1899

		5	25	48	71
KEGG_PANTOTHENATE_AND_COA_BIOSYNTHESIS	16	0.71533	1.8527	0.0058	0.1927
		2	87	48	66
BANDRES_RESPONSE_TO_CARMUSTIN_MGMT_48HR_DN	160	0.48725	1.7050	0.0058	0.2296
		9	49	82	98
KEGG_PHENYLALANINE_METABOLISM	17	0.69138	1.8321	0.0059	0.1926
		8	74	64	12
WINNEPENNINGX_MELANOMA_METASTASIS_DN	44	0.61382	1.9023	0.006	0.2008
		8	08		78
GUENTHER_GROWTH_SPHERICAL_VS_ADHERENT_DN	26	0.67524	1.7909	0.0061	0.1963
		6	87	6	02
MULLIGHAN_MLL_SIGNATURE_1_UP	378	0.70752	1.8358	0.0063	0.1880
		9	03	03	96
FERRANDO_TAL1_NEIGHBORS	20	0.73401	1.8035	0.0074	0.1958
		5	78	07	07
REACTOME_PKA_ACTIVATION_IN_GLUCAGON_SIGNALLING	17	0.61700	1.7161	0.0076	0.2224
		1	43	05	59
KOHOUTEK_CCNT1_TARGETS	47	0.54859	1.7028	0.0076	0.2300
		3	87	34	09
PID_EPHA_FWDPATHWAY	34	0.58151	1.7153	0.0076	0.2213
		1	38	63	74
BRACHAT_RESPONSE_TO_METHOTREXATE_UP	23	0.66928	1.7398	0.0076	0.2040
		7	85	78	97
DACOSTA_UV_RESPONSE_VIA_ERCC3_TTD_UP	59	0.67906	1.8404	0.0076	0.1960
		8	31	92	83
MARZEC_IL2_SIGNALING_UP	115	0.48227	1.6927	0.0077	0.2402
		5	45	07	69
BOQUEST_STEM_CELL_DN	217	0.49864	1.7339	0.0077	0.2085
		2	7	37	86

KIM_ALL_DISORDERS_DURATION_CORR_DN	141	0.68839	1.8640	0.0077	0.1900
		6	57	67	17
HAMAI_APOPTOSIS_VIA_TRAIL_DN	200	0.54032	1.8751	0.0077	0.2034
		8	99	82	45
HUTTMANN_B_CLL_POOR_SURVIVAL_UP	278	0.55441	1.8565	0.0078	0.1892
		4	35	43	46
HOLLERN_MICROACINAR_BREAST_TUMOR_DN	15	0.66656	1.7897	0.0078	0.1966
		2	3	43	21
CHIARADONNA_NEOPLASTIC_TRANSFORMATION_CDC25_DN	142	0.55327	1.8043	0.0078	0.1990
		9	97	43	85
WALLACE_JAK2_TARGETS_UP	22	0.72934	1.7829	0.0078	0.1979
		2	4	59	1
MOREAUX_B_LYMPHOCYTE_MATURATION_BY_TACI_UP	83	0.54271	1.7865	0.0078	0.1949
		7	61	74	3
WANG_LSD1_TARGETS_DN	37	0.58338	1.7621	0.0078	0.2054
		3	06	74	88
KEGG_PRIMARY_BILE_ACID_BIOSYNTHESIS	16	0.62577	1.7271	0.0081	0.2112
			99	14	35
MOOTHA_GLYCOLYSIS	21	0.70504	1.7428	0.0083	0.2058
		9	99	86	8
ZHAN_EARLY_DIFFERENTIATION_GENES_DN	42	0.58773	1.7649	0.0094	0.2071
		9	55	16	63
ACEVEDO_NORMAL_TISSUE_ADJACENT_TO_LIVER_TUMOR_DN	347	0.53572	1.7884	0.0095	0.1952
		5	66	24	15
JOHNSTONE_PARVB_TARGETS_2_UP	143	0.60681	1.8656	0.0096	0.1963
		4	74	34	69
REACTOME_TNFS_BIND_THEIR_PHYSIOLOGICAL_RECEPTORS	28	0.63139	1.8387	0.0096	0.1887
		6	72	71	84
RODRIGUES_NTN1_TARGETS_DN	159	0.46019	1.7129	0.0097	0.2235

		2	04	09	15
WANG_BARRETTS_ESOPHAGUS_AND_ESOPHAGUS_CANCER_DN	37	0.58951	1.8052	0.0097	0.1998
		4	79	28	68
MARTENS_BOUND_BY_PML_RARA_FUSION	439	0.56401	1.8597	0.0097	0.1909
		7	82	47	29
KEGG_GALACTOSE_METABOLISM	26	0.62221	1.7707	0.0098	0.2049
		7	66	62	72
BHAT_ESR1_TARGETS_VIA_AKT1_UP	279	0.50009	1.7781	0.0099	0.1983
		1	5	21	67
REACTOME_RHO_GTPASES_ACTIVATE_NADPH_OXIDASES	24	0.72093	1.8078	0.01	0.1994
		2	29		14
REACTOME_NUCLEOBASE_CATABOLISM	36	0.56786	1.7426	0.0100	0.2048
		2	48	6	73
SCHMIDT_POR_TARGETS_IN_LIMB_BUD_UP	26	0.69187	1.7536	0.0101	0.2084
			22	01	71
MATTHEWS_SKIN_CARCINOGENESIS_VIA_JUN	16	0.68842	1.7216	0.0105	0.2170
			05	26	51
MULLIGHAN_MLL_SIGNATURE_2_UP	418	0.69830	1.8121	0.0105	0.2011
		5	96	71	25
REACTOME_TRAFFICKING_OF_GLUR2_CONTAINING_AMPA_RECEPTORS	17	0.60688	1.6921	0.0112	0.2400
		4	99	99	03
SHIN_B_CELL_LYMPHOMA_CLUSTER_3	27	0.64239	1.7470	0.0113	0.21
		6	74	64	
DACOSTA_UV_RESPONSE_VIA_ERCC3_UP	311	0.59056	1.7540	0.0114	0.2092
		1	83	72	5
VALK_AML_WITH_FLT3_ITD	41	0.70616	1.8656	0.0115	0.1913
		9	09	16	5
SARTIPY_BLUNTED_BY_INSULIN_RESISTANCE_DN	18	0.67371	1.7632	0.0115	0.2049
		9	54	61	66

MODY_HIPPOCAMPUS_POSTNATAL	55	0.54580	1.7401	0.0115	0.2065
		9	39	61	79
KIM_RESPONSE_TO_TSA_AND_DECITABINE_UP	132	0.44079	1.6710	0.0116	0.2496
		2	67	05	12
WAMUNYOKOLI_OVARIAN_CANCER_LMP_UP	268	0.52552	1.7816	0.0116	0.1967
		4	33	28	72
EBAUER_TARGETS_OF_PAX3_FOXO1_FUSION_UP	197	0.46183	1.7226	0.0116	0.2161
		8	75	5	64
SHETH_LIVER_CANCER_VS_TXNIP_LOSS_PAM2	165	0.46700	1.6736	0.0116	0.2466
		2	07	5	21
DELLA_RESPONSE_TO_TSA_AND_BUTYRATE	20	0.70760	1.7681	0.0116	0.2059
		8	41	73	31
VARELA_ZMPSTE24_TARGETS_UP	43	0.64156	1.7577	0.0117	0.2072
		6	15	19	64
TAKEDA_TARGETS_OF_NUP98_HOXA9_FUSION_10D_UP	192	0.47139	1.7283	0.0117	0.2116
		3	9	42	8
LINDGREN_BLADDER_CANCER_HIGH_RECURRENCE	47	0.63857	1.7892	0.0119	0.1954
			64	05	96
REACTOME_SMOOTH_MUSCLE_CONTRACTION	36	0.60241	1.7391	0.0119	0.2042
		3	02	28	2
REACTOME_LYSOSOME_VESICLE_BIOGENESIS	35	0.65860	1.7635	0.0119	0.2081
		8	35	76	93
REACTOME_RECYCLING_PATHWAY_OF_L1	48	0.61498	1.7679	0.0121	0.2043
		1	78	95	37
BIDUS_METASTASIS_DN	146	0.51840	1.7835	0.0132	0.1987
		3	23	08	67
GAVIN_PDE3B_TARGETS	22	0.62842	1.7578	0.0132	0.2087
		6	99	33	75
PID_HDAC_CLASSIII_PATHWAY	26	0.64688	1.7399	0.0133	0.2054

		6	51	59	56
REACTOME_G_PROTEIN_MEDIATED_EVENTS	53	0.52088	1.7327	0.0134	0.2097
		2	22	1	09
VALK_AML_CLUSTER_2	28	0.70316	1.8191	0.0134	0.1979
		1	79	62	42
FAELT_B_CLL_WITH_VH3_21_UP	43	0.75667	1.8362	0.0135	0.1903
		6	61	14	52
WIERENGA_STAT5A_TARGETS_GROUP1	123	0.50150	1.7386	0.0136	0.2035
		6	71	45	7
YU_MYC_TARGETS_DN	54	0.62561	1.8154	0.0136	0.1971
		7	15	72	02
LIN_APC_TARGETS	70	0.67500	1.8659	0.0136	0.2014
		9	61	72	93
SCHLOSSER_SERUM_RESPONSE_UP	125	0.56575	1.8059	0.0137	0.2012
		3	57	25	8
NIKOLSKY_BREAST_CANCER_5P15_AMPLICON	26	0.62374	1.7284	0.0137	0.2130
		4	19	52	44
CREIGHTON_AKT1_SIGNALING_VIA_MTOR_DN	23	0.77329	1.7046	0.0139	0.2291
			44	72	42
BIOCARTA_SPPA_PATHWAY	16	0.69062	1.6977	0.0142	0.2376
		9	41	86	52
REACTOME_DAG_AND_IP3_SIGNALING	40	0.51837	1.6787	0.0150	0.2412
		8	42	94	43
ODONNELL_TARGETS_OF_MYC_AND_TFRC_UP	78	0.56723	1.7882	0.0152	0.1935
		3	09	96	51
KEGG_PEROXISOME	78	0.55015	1.7186	0.0152	0.2213
		5	04	96	9
NIKOLSKY_BREAST_CANCER_8Q23_Q24_AMPLICON	154	0.56251	1.7590	0.0153	0.2080
		7	91	55	55

QI_PLASMACYTOMA_UP	248	0.56190	1.7950	0.0154	0.1937
		8	67	14	39
LI_INDUCED_T_TO_NATURAL_KILLER_UP	298	0.53601	1.7928	0.0155	0.1941
		6	07	34	86
ROZANOV_MMP14_TARGETS_DN	33	0.54494	1.7037	0.0155	0.2295
		2	72	34	37
XU_CREBBP_TARGETS_DN	41	0.60458	1.7515	0.0155	0.2058
		3	04	64	95
LIU_IL13_MEMORY_MODEL_UP	17	0.67930	1.7524	0.0157	0.2056
		9	64	17	
CHIARADONNA NEOPLASTIC_TRANSFORMATION_KRAS_DN	135	0.51727	1.7094	0.0158	0.2253
		7	28	73	64
TAKEDA_TARGETS_OF_NUP98_HOXA9_FUSION_8D_UP	156	0.51240	1.7159	0.0161	0.2214
		7	39	94	9
BASSO_HAIRY_CELL_LEUKEMIA_UP	77	0.53024	1.7559	0.0167	0.2072
		6	52	6	12
REACTOME_SYNTHESIS_OF_SUBSTRATES_IN_N_GLYCAN_BIOSYTHESIS	62	0.5403	1.6963	0.0174	0.2364
			87	08	44
HELLER_SILENCED_BY_METHYLATION_UP	281	0.49857	1.7457	0.0174	0.2060
			56	42	56
KANNAN_TP53_TARGETS_UP	57	0.58351	1.7475	0.0174	0.2107
		5	14	76	28
REACTOME_SIGNALING_BY_MODERATE_KINASE_ACTIVITY_BRAF_MUTANTS	45	0.59644	1.7308	0.0174	0.2121
		9	64	76	15
REACTOME_RAF_INDEPENDENT_MAPK1_3_ACTIVATION	23	0.65831	1.6836	0.0174	0.2422
		9	13	76	52
REACTOME_CA_DEPENDENT_EVENTS	36	0.55103	1.6972	0.0175	0.2371
			54	44	91
BASSO_CD40_SIGNALING_UP	102	0.60749	1.7734	0.0175	0.2018

			33	78	6
REACTOME_CASPASE_ACTIVATION_VIA_EXTRINSIC_APOPTOTIC_SIGNALLING_PATHWAY	26	0.64281	1.7069	0.0175	0.2287
		7	6	78	35
PID_ENDOTHELIN_PATHWAY	63	0.53709	1.6719	0.0176	0.2489
		9	69	13	98
CHEN_HOXA5_TARGETS_9HR_DN	42	0.61269	1.7661	0.0176	0.2068
		5		47	12
KUROZUMI_RESPONSE_TO_ONCOCYTIC_VIRUS	43	0.63641	1.7361	0.0176	0.2072
		2	27	47	08
JOHNSTONE_PARVB_TARGETS_3_UP	426	0.53534	1.7526	0.0177	0.2067
		7	85	17	16
KEGG_VEGF_SIGNALING_PATHWAY	76	0.50273	1.6889	0.0178	0.2404
		1	05	93	99
VERHAAK_AML_WITH_NPM1_MUTATED_UP	185	0.66039	1.7281	0.0182	0.2107
		3	56	56	61
REACTOME_SYNTHESIS_OF_IP3_AND_IP4_IN_THE_CYTOSOL	26	0.56049	1.6645	0.0184	0.2493
		7	33	84	23
MARSON_FOXP3_TARGETS_UP	62	0.58848	1.7993	0.0187	0.1900
		1	03	27	04
BIOCARTA_BARRESTIN_SRC_PATHWAY	17	0.67871	1.7447	0.0188	0.2066
		8	79	32	15
KIM_LRRC3B_TARGETS	30	0.70459	1.7700	0.0190	0.2045
		3	45	84	63
STAMBOLSKY_TARGETS_OF_MUTATED_TP53_DN	51	0.57664	1.6895	0.0193	0.2402
		2	37	8	43
BIOCARTA_GH_PATHWAY	27	0.60295	1.6919	0.0194	0.2391
		2	93	17	06
MURAKAMI_UV_RESPONSE_24HR	20	0.60432	1.6830	0.0194	0.2409
		8	42	93	16

DASU_IL6_SIGNALING_UP	61	0.59626	1.7561	0.0195	0.2086
		1	35	69	86
MEDINA_SMARCA4_TARGETS	37	0.54288	1.6623	0.0195	0.2493
		5	24	69	03
REACTOME_INTERFERON_ALPHA_BETA_SIGNALING	70	0.61206	1.7634	0.0211	0.2064
		6	81	13	49
BOYLAN_MULTIPLE_MYELOMA_D_DN	74	0.56832	1.8209	0.0212	0.1970
		9	59	36	93
HENDRICKS_SMARCA4_TARGETS_UP	54	0.54638	1.6829	0.0214	0.2399
		2	19	01	31
REACTOME_INTERFERON_GAMMA_SIGNALING	91	0.59999	1.6837	0.0214	0.2432
		5	51	42	12
XU_HGF_TARGETS_INDUCED_BY_AKT1_6HR	16	0.66103	1.6831	0.0215	0.2419
		5	62	69	12
KLEIN_PRIMARY EFFUSION LYMPHOMA UP	50	0.58262	1.6877	0.0216	0.2404
		8	44	96	76
KEGG_INTESTINAL_IMMUNE_NETWORK_FOR_IGA_PRODUCTION	46	0.62884	1.7459	0.0219	0.2072
		5	93	56	4
REACTOME_INTEGRIN_SIGNALING	27	0.61227	1.6828	0.0233	0.2388
		4	65	01	91
SCHEIDEREIT_IKK_INTERACTING_PROTEINS	55	0.54527	1.6966	0.0239	0.2372
		1	08	85	53
DELYS_THYROID_CANCER_UP	442	0.46068	1.6608	0.0241	0.2489
		4	46	45	93
LEE_EARLY_T_LYMPHOCYTE_DN	58	0.62105	1.7493	0.0243	0.2085
		5	83	9	53
PID_IL12_2PATHWAY	63	0.58323	1.7266	0.0245	0.2112
		4	04	75	53
CROMER_METASTASIS_DN	75	0.53135	1.6933	0.0247	0.2403

		6	43	15	61
HAHTOLA_CTCL_PATHOGENESIS	16	0.70026	1.7928	0.0259	0.1963
		2	62	48	15
BIOCARTA_RHO_PATHWAY	21	0.63968	1.6845	0.026	0.2442
		9	7		34
FOSTER_KDM1A_TARGETS_DN	199	0.51406	1.7151	0.0263	0.2204
			42	65	63
KEGG_TYPE_I_DIABETES_MELLITUS	41	0.61505	1.7462	0.0264	0.2083
		1	72	65	02
BURTON_ADIPOGENESIS_8	76	0.53751	1.6852	0.0264	0.2442
		2	25	77	77
PID_P38_MKK3_6PATHWAY	26	0.59748	1.6798	0.0267	0.2414
		9	61	69	08
KIM_GASTRIC_CANCER_CHEMOSENSITIVITY	93	0.50402	1.6888	0.0271	0.2393
		9	29	84	72
FLECHNER_BIOPSY_KIDNEY_TRANSPLANT_REJECTED_VS_OK_UP	86	0.64933	1.7284	0.0277	0.2143
		2	6	78	19
WANG_TARGETS_OF_MLL_CBP_FUSION_UP	43	0.52324	1.6615	0.0282	0.2487
		5	19	83	85
MORI_LARGE_PRE_BII_LYMPHOCYTE_DN	56	0.65008	1.7527	0.0291	0.2083
		6	82	26	22
LI_DCP2_BOUND_MRNA	87	0.68998	1.6918	0.0294	0.2380
		6	54	7	36
RODWELL_AGING_KIDNEY_UP	489	0.51017	1.7359	0.0305	0.2061
			52	34	44
STEARMAN_LUNG_CANCER_EARLY_VS_LATE_DN	58	0.57804	1.7094	0.0306	0.2265
			97	75	43
WALLACE_PROSTATE_CANCER_RACE_UP	294	0.50980	1.6767	0.0311	0.2437
		2	99	89	94

CREIGHTON_AKT1_SIGNALING_VIA_MTOR_UP	34	0.65970	1.7284	0.0313	0.2157
		5	65	11	61
BIOCARTA_NO2IL12_PATHWAY	15	0.70453	1.6617	0.0325	0.2494
		5	17	05	64
ZHAN_MULTIPLE_MYELOMA_CD2_UP	47	0.54230	1.6653	0.0327	0.2497
		1	59	55	24
SANSOM_APC_MYC_TARGETS	233	0.52821	1.6788	0.0338	0.2421
		4	37	35	81
KEGG_FRUCTOSE_AND_MANNOSE_METABOLISM	33	0.57407	1.6813	0.0356	0.2408
		3		44	47
PID_TXA2PATHWAY	56	0.55793	1.7053	0.0366	0.2305
		6	3	8	06
GINESTIER_BREAST_CANCER_ZNF217_AMPLIFIED_DN	329	0.63475	1.8011	0.0384	0.1909
		5	33	62	72
SANSOM_APC_TARGETS_REQUIRE_MYC	213	0.55231	1.7119	0.0384	0.2242
		8	54	62	61
KEGG_ALLOGRAFT_REJECTION	35	0.65581	1.6838	0.0417	0.2442
		3	89	46	46
VALK_AML_CLUSTER_3	34	0.56315	1.6599	0.0425	0.2497
		2	55	93	33
NADLER_OBESITY_UP	56	0.67064	1.6947	0.0443	0.2385
		3	54	55	18
KEGG_STEROID_BIOSYNTHESIS	17	0.66329	1.6648	0.0465	0.2497
		4	25	12	84
ICHIBA_GRAFT_VERSUS_HOST_DISEASE_35D_UP	139	0.59999	1.6906	0.0473	0.2393
			3	37	75
PID_TCR_PATHWAY	64	0.58245	1.6806	0.0477	0.2410
		7	43	06	87

Table S6. GSEA analysis results of the low- and high-risk score phenotypes in AML using c5 reference gene set.

NAME	SIZ	ES	NES	NOM	FDR
	E			p-val	q-val
GO_SENSORY_PERCEPTION_OF_PAIN	101	0.4171	1.5543	0.0081	0.2436
		92	14	63	97
GO_VOLTAGE_GATED_ION_CHANNEL_ACTIVITY	195	0.3962	1.5341	0.0135	0.2461
		51	03	66	33
GO_REGULATION_OF_STRIATED_MUSCLE_CELL_DIFFERENTIATION	108	0.4028	1.5411	0.0140	0.2464
		89	03	56	28
GO_POSITIVE_REGULATION_OF_STRIATED_MUSCLE_CELL_DIFFERENTIATION	66	0.4131	1.5244	0.0156	0.2466
		37	8	86	15
GO_ACTIVE_TRANSMEMBRANE_TRANSPORTER_ACTIVITY	344	0.3745	1.5611	0.0161	0.2473
		03	55	29	11
GO_DISTAL_AXON	277	0.3966	1.5493	0.0164	0.2431
		87	31	95	15
GO_NEURONAL_ACTION_POTENTIAL	34	0.4602	1.5106	0.0173	0.2474
		38	72	41	33
GO_REGULATION_OF_ION_TRANSMEMBRANE_TRANSPORT	465	0.3694	1.5263	0.018	0.2474
		39	91		72
GO_MUSCLE_CONTRACTION	352	0.3638	1.4801	0.0181	0.2472
		65	17	09	23
GO_REGULATION_OF_REGULATED_SECRETORY_PATHWAY	157	0.4268	1.5630	0.0182	0.2485
		83	82	56	67
GO_NEGATIVE_REGULATION_OF_TRANSPORT	490	0.3848	1.5585	0.0189	0.2459
		58	03	08	39
GO_POSITIVE_REGULATION_OF_COLD_INDUCED_THERMOGENESIS	97	0.4162	1.5579	0.0192	0.245
		05	17	31	
GO_PEPTIDE_RECEPTOR_ACTIVITY	152	0.3756	1.4928	0.0193	0.2467
		73	3	8	68

GO_GATED_CHANNEL_ACTIVITY	340	0.3645	1.4585	0.0211	0.2453
		38	76	95	61
GO_MULTICELLULAR_ORGANISMAL_SIGNALING	202	0.3796	1.4795	0.0216	0.2465
		47	3	54	4
GO_INORGANIC_ANION_TRANSPORT	168	0.3837	1.5234	0.0219	0.2471
		39	1	12	61
GO_ANION_TRANSMEMBRANE_TRANSPORTER_ACTIVITY	321	0.3635	1.5130	0.022	0.2485
		07	11		54
GO_ACTIN_BASED_CELL_PROJECTION	204	0.3881	1.4951	0.0223	0.2481
		95	51	12	62
GO_REGULATION_OF_CYTOSOLIC_CALCIIUM_ION_CONCENTRATION	352	0.3788	1.5064	0.0224	0.2482
		66	43	49	14
GO_EXOCYTIC_VESICLE	203	0.4060	1.5291	0.0225	0.2463
		6	46	41	
GO_REGULATION_OF_ANATOMICAL_STRUCTURE_SIZE	492	0.3881	1.5390	0.0228	0.2471
		63	64	69	67
GO_ORGANOPHOSPHATE_ESTER_TRANSPORT	117	0.4077	1.5580	0.0234	0.2462
		46	47	04	31
GO_PEPTIDYL_TYROSINE_MODIFICATION	357	0.3896	1.5364	0.0241	0.2457
		84	91	94	23
GO_POSITIVE_REGULATION_OF_SMOOTH_MUSCLE_CONTRACTION	31	0.4776	1.5596	0.0242	0.2463
			65	42	54
GO_REGULATION_OF_METAL_ION_TRANSPORT	375	0.3919	1.5453	0.0243	0.2436
		68	22	41	96
GO_MONOVALENT_INORGANIC_CATION_TRANSMEMBRANE_TRANSPORTER_ACTIVITY	365	0.3511	1.4761	0.0243	0.2465
		13	04	41	02
GO_MULTIVESICULAR_BODY	43	0.4821	1.5618	0.0247	0.2465
		85	42	93	77
GO_REGULATION_OF_BODY_FLUID_LEVELS	498	0.3910	1.5096	0.0253	0.2473

		44	39	7	29
GO_SCAFFOLD_PROTEIN_BINDING	57	0.4519	1.5575	0.0254	0.2446
		54	56	78	47
GO_POSITIVE_REGULATION_OF_ION_TRANSPORT	264	0.4049	1.5526	0.0262	0.2445
		17	07	1	88
GO_REGULATION_OF_CATION_CHANNEL_ACTIVITY	171	0.3705	1.4834	0.0263	0.2469
		42	38	69	72
GO_CELLULAR_RESPONSE_TO_CALCIUM_ION	82	0.4046	1.5029	0.0263	0.2477
		22	46	69	81
GO_REGULATION_OF_CATION_TRANSMEMBRANE_TRANSPORT	326	0.3674	1.4859	0.0264	0.2457
		64	72	23	05
GO_CALCIUM_ION_TRANSMEMBRANE_TRANSPORT	310	0.3793	1.4946	0.0268	0.2474
		6	93	04	65
GO_POSITIVE_REGULATION_OF_RECEPTOR_SIGNALING_PATHWAY_VIA_STAT	89	0.4264	1.5290	0.0269	0.2460
		94	04	71	96
GO_INORGANIC_ANION_TRANSMEMBRANE_TRANSPORT	110	0.4152	1.5372	0.0272	0.2471
		37	13	9	55
GO_RECEPTOR_COMPLEX	397	0.3720	1.4611	0.0274	0.2467
		37	06	51	99
GO_POLYOL_BIOSYNTHETIC_PROCESS	76	0.4275	1.5331	0.0276	0.2468
		36	58	6	87
GO_POSITIVE_REGULATION_OF_PROTEIN_MATURATION	25	0.5034	1.5502	0.0284	0.2439
		09	4	46	52
GO_NEUROTRANSMITTER_CATABOLIC_PROCESS	18	0.5521	1.5630	0.0287	0.2481
		19	2	47	87
GO_M_BAND	29	0.4795	1.5133	0.0290	0.2487
		69	26	46	44
GO_POSITIVE_REGULATION_OF_LIPID_BIOSYNTHETIC_PROCESS	78	0.4126	1.4729	0.0291	0.2486
		68	41	67	

GO_CYTOPLASMIC_REGION	470	0.3943	1.5620	0.0292	0.2468
		83	22	28	32
GO_STRUCTURAL_CONSTITUENT_OF_CYTOSKELETON	98	0.4255	1.5629	0.0293	0.2473
		03		5	82
GO_SECONDARY_ALCOHOL_METABOLIC_PROCESS	85	0.4390	1.5528	0.0298	0.2446
		84	07	51	64
GO_INTESTINAL_ABSORPTION	35	0.4513	1.5358	0.0298	0.2455
		21	24	8	78
GO_RESPONSE_TO_XENOBIOTIC_STIMULUS	278	0.3519	1.4656	0.0299	0.2494
		6	26	79	29
GO_B_CELL_PROLIFERATION	93	0.4233	1.5546	0.0301	0.2440
		39	1	81	95
GO_INTRINSIC_COMPONENT_OF_SYNAPTIC_VESICLE_MEMBRANE	48	0.4433	1.4934	0.0302	0.2472
		29	01	38	18
GO_SOLUTE_CATION_ANTIPORTER_ACTIVITY	33	0.4773	1.5601	0.0303	0.2475
		76		64	49
GO_REGULATION_OF_IMMUNOGLOBULIN_PRODUCTION	62	0.4776	1.5566	0.0304	0.2431
		33	81	35	63
GO_NOREPINEPHRINE_TRANSPORT	21	0.5359	1.5474	0.0305	0.2433
		74	81	5	7
GO_RESPONSE_TO_ANESTHETIC	74	0.4042	1.5003	0.0309	0.2470
		81	32	92	31
GO_ORGANIC_ANION_TRANSMEMBRANE_TRANSPORTER_ACTIVITY	206	0.3482	1.4435	0.0313	0.2443
		91	01	81	16
GO_REGULATION_OF_LYMPHOCYTE_APOPTOTIC_PROCESS	56	0.4489	1.5626	0.0314	0.2473
		06	52	47	24
GO_INORGANIC_ANION_TRANSMEMBRANE_TRANSPORTER_ACTIVITY	145	0.3830	1.4671	0.0316	0.2489
		99	09	21	44
GO_REGULATION_OF_MYELOID_LEUKOCYTE_DIFFERENTIATION	116	0.4252	1.5498	0.0317	0.2432

			44	36	8	26
GO_POSITIVE_REGULATION_OF_INSULIN_SECRETION	69	0.4050	1.4910	0.0320	0.2450	
			05	14	51	01
GO_LIPASE_ACTIVITY	121	0.3810	1.5098	0.0320	0.2476	
			05	88	64	34
GO_POSITIVE_REGULATION_OF_RESPONSE_TO_EXTERNAL_STIMULUS	305	0.4196	1.5568	0.0321	0.2434	
			15	19	29	32
GO_PLASMA_MEMBRANE_RECEPTOR_COMPLEX	186	0.3872	1.4635	0.0322	0.2477	
			07	19	58	44
GO_CYTOKINE_RECEPTOR_BINDING	280	0.3686	1.4605	0.0326	0.2467	
			66	6	53	83
GO_NEURON_PROJECTION_TERMINUS	134	0.3886	1.4612	0.0326	0.2474	
			82	28	53	15
GO_NEGATIVE_REGULATION_OF_MUSCLE_CELL_APOPTOTIC_PROCESS	43	0.4559	1.5147	0.0329	0.2484	
			5	44	22	11
GO_REGULATION_OF_SYNAPTIC_PLASTICITY	180	0.3801	1.4644	0.0330	0.2477	
			95	92	74	08
GO_CALCIUM_CHANNEL_REGULATOR_ACTIVITY	46	0.4608	1.5500	0.0331	0.2433	
			37	55	26	31
GO_INOSITOL_PHOSPHATE_BIOSYNTHETIC_PROCESS	42	0.4492	1.5080	0.0331	0.2474	
			98	97	95	28
GO_PHOSPHOLIPID_TRANSPORT	89	0.4065	1.5126	0.0334	0.2480	
			09	08	73	5
GO_POSITIVE_REGULATION_OF_PROTEIN_TARGETING_TO_MEMBRANE	30	0.5037	1.5394	0.0336	0.2470	
			96	52	13	13
GO_POSITIVE_REGULATION_OF_CELL_CELL_ADHESION	251	0.4410	1.5545	0.0337	0.2437	
			86	45	55	6
GO_JNK_CASCADE	210	0.4214	1.5365	0.0338	0.2460	
			25	61	27	5

GO_PRESYNAPTIC_ACTIVE_ZONE	69	0.4289	1.5106	0.0339	0.2471
		23	45	32	12
GO_TISSUE_REGENERATION	65	0.3991	1.4950	0.0339	0.2479
		82	85	32	17
GO_REGULATION_OF_STRESS_ACTIVATED_PROTEIN_KINASE_SIGNALING_CASCADE	232	0.4059	1.5243	0.0341	0.2464
		34	02	15	85
GO_CARDIAC_CONDUCTION	144	0.4039	1.4826	0.0341	0.2470
		12	99	37	29
GO_MELANIN_BIOSYNTHETIC_PROCESS	21	0.5060	1.5146	0.0341	0.2481
		71	33	37	95
GO_LYMPHOCYTE_HOMEOSTASIS	63	0.4695	1.5638	0.0341	0.2498
		55	48	88	72
GO_MYOTUBE_CELL_DEVELOPMENT	34	0.4160	1.4519	0.0343	0.2449
		36	63	43	59
GO_ICOSANOID_METABOLIC_PROCESS	81	0.4123	1.5282	0.0344	0.2453
		26	56	83	81
GO_NEGATIVE_REGULATION_OF_CELL_CELL_ADHESION	169	0.4106	1.5452	0.0347	0.2434
		18	29	65	27
GO_RESPONSE_TO_MECHANICAL_STIMULUS	207	0.3992	1.5312	0.0348	0.2479
		61	82	36	02
GO_SARCOLEMMMA	136	0.4121	1.5005	0.0349	0.2474
		56	21	79	12
GO_NEGATIVE_REGULATION_OF_LEUKOCYTE_CELL_CELL_ADHESION	122	0.4338	1.5568	0.0353	0.2443
		82	54	43	4
GO_STEROID_METABOLIC_PROCESS	312	0.3844	1.5369	0.0353	0.2463
		97	23	43	51
GO_REGULATION_OF_LYMPHOCYTE_DIFFERENTIATION	165	0.4438	1.5568	0.0357	0.2438
		97	46	89	72
GO_GUANYL_NUCLEOTIDE_EXCHANGE_FACTOR_ACTIVITY	211	0.4259	1.5594	0.0357	0.2462

		66	12	89	39
GO_REGULATION_OF_PEPTIDASE_ACTIVITY	425	0.3798	1.5190	0.0361	0.2485
		7	99	7	86
GO_MATERNAL_PROCESS_INVOLVED_IN_FEMALE_PREGNANCY	62	0.4518	1.5493	0.0362	0.2427
		54	13	9	05
GO_NUCLEOBASE_CONTAINING_SMALL_MOLECULE_BIOSYNTHETIC_PROCESS	103	0.4491	1.5515	0.0364	0.2450
		13	33	46	31
GO_FILOPODIUM	100	0.4389	1.5297	0.0365	0.2461
		44	36	11	48
GO_DECIDUALIZATION	22	0.5275	1.5152	0.0367	0.2488
		1	35	35	02
GO_NEGATIVE_REGULATION_OF_TRANSMEMBRANE_TRANSPORT	122	0.3838	1.4665	0.0368	0.2494
		81	76	1	45
GO_CATECHOLAMINE_SECRETION	64	0.4306	1.4853	0.0375	0.2453
		38	72	23	29
GO_NEUROTRANSMITTER_METABOLIC_PROCESS	132	0.3944	1.4913	0.0378	0.2454
		51	18	15	55
GO_TRANSPORT_VESICLE	380	0.4100	1.5372	0.0378	0.2475
		67	34	15	49
GO_PHOSPHORUS_OXYGEN_LYASE_ACTIVITY	20	0.5441	1.5501	0.0379	0.2436
		78	13	24	92
GO_VOLTAGE_GATED_CALCIUM_CHANNEL_ACTIVITY	48	0.4428	1.5046	0.0379	0.2472
		81	33	24	49
GO_SECOND_MESSENGER_MEDIATED_SIGNALING	434	0.3392	1.4182	0.0379	0.2499
		52	03	24	51
GO_RESPIRATORY_GASEOUS_EXCHANGE	64	0.3898	1.4596	0.038	0.2459
		5	66		19
GO_ERK1_AND_ERK2_CASCADE	303	0.3906	1.4865	0.0382	0.2453
		78	81	29	82

GO_BRUSH_BORDER	96	0.3939	1.4925	0.0382	0.2466
		59	06	29	41
GO_CARBOHYDRATE_BIOSYNTHETIC_PROCESS	208	0.4311	1.5549	0.0383	0.2439
		76	95	75	36
GO_ORGANIC_ANION_TRANSPORT	484	0.3472	1.4741	0.0385	0.2486
		65	33	4	03
GO_REGULATION_OF_CELL_PROJECTION_ASSEMBLY	170	0.3834	1.4852	0.0388	0.2451
		99	68	55	7
GO_ORGANIC_HYDROXY_COMPOUND_BIOSYNTHETIC_PROCESS	262	0.4019	1.5343	0.0388	0.2465
		86	52	77	69
GO_3_5_CYCLIC_GMP_PHOSPHODIESTERASE_ACTIVITY	17	0.5169	1.5283	0.0389	0.2455
		74	71	34	99
GO_SITE_OF_POLARIZED_GROWTH	166	0.4027	1.4939	0.0389	0.2479
		38	87	34	04
GO_POLYSACCHARIDE_BINDING	22	0.4926	1.5075	0.0390	0.2479
		34	26	14	55
GO_REACTIVE_OXYGEN_SPECIES_METABOLIC_PROCESS	161	0.4540	1.5482	0.0393	0.2430
		21	18	01	59
GO_POSITIVE_REGULATION_OF_PEPTIDE_SECRETION	271	0.3750	1.4866	0.0393	0.2455
		5	95	37	16
GO_DIVALENT_INORGANIC_CATION_TRANSPORT	466	0.3648	1.4693	0.0394	0.2488
		85	54	19	29
GO_REGULATION_OF_CALCIUM_ION_TRANSMEMBRANE_TRANSPORTER_ACTIVITY	83	0.4453	1.5300	0.0396	0.2465
		61	5	66	24
GO_PYRIMIDINE_CONTAINING_COMPOUND_CATABOLIC_PROCESS	39	0.4736	1.5060	0.0398	0.2474
		35	33	32	32
GO_HIGH_DENSITY_LIPOPROTEIN_PARTICLE_CLEARANCE	16	0.5474	1.5580	0.0399	0.2458
		96	01	2	16
GO_PROTEIN_KINASE_C_BINDING	49	0.4939	1.5620	0.0400	0.2472

		94	86	84	56
GO_REGULATION_OF_TRANSPORTER_ACTIVITY	268	0.3616	1.4684	0.0401	0.2484
		8	96	61	38
GO_REGULATION_OF_CYSTEINE_TYPE_ENDOPEPTIDASE_ACTIVITY	225	0.4253	1.5577	0.0402	0.2448
		17	66	54	14
GO_PHOSPHOTYROSINE_RESIDUE_BINDING	40	0.5132	1.5622	0.0404	0.2474
		13	88	26	15
GO_NEGATIVE_REGULATION_OF_CALCIIUM_ION_TRANSMEMBRANE_TRANSPORT	38	0.4782	1.5152	0.0405	0.2491
		83	83	68	05
GO_CONTRACTILE_FIBER	228	0.3643	1.4473	0.0406	0.2435
		08	34	5	67
GO_ANIMAL_ORGAN_REGENERATION	77	0.4078	1.4867	0.0408	0.2457
		23	62	6	17
GO_RESPONSE_TO_MINERALOCORTICOID	32	0.4955	1.5456	0.0410	0.2436
		65	19	02	58
GO_MEMBRANE_REGION	323	0.4214	1.5636	0.0411	0.2491
		74	81	52	21
GO_POSITIVE_REGULATION_OF_INSULIN_SECRETION_INVOLVED_IN_CELLULAR_RESPONSE_TO_GLUCOSE_STIMULUS	32	0.4513	1.4904	0.0412	0.2450
		16	05	37	46
GO_REGULATION_OF_MEMBRANE_LIPID_DISTRIBUTION	46	0.4407	1.5060	0.0412	0.2477
		87	75	37	11
GO_NEGATIVE_REGULATION_OF_PROTEIN_KINASE_B_SIGNALING	53	0.4760	1.5307	0.0413	0.2470
		27	51	04	55
GO_RESPONSE_TO_CALCIIUM_ION	149	0.3840	1.4927	0.0413	0.2466
		97	11	22	56
GO_REGULATION_OF_INSULIN_SECRETION	171	0.3674	1.4560	0.0415	0.2462
		71	51	8	1
GO_POSITIVE_REGULATION_OF_AXONOGENESIS	83	0.4192	1.4786	0.0419	0.2472
		09	05	16	78

GO_ION_CHANNEL_BINDING	124	0.4110	1.4995	0.0422	0.2470
		71	99	54	97
GO_CARBOHYDRATE_BINDING	269	0.3831	1.4884	0.0422	0.2452
		19	93	83	59
GO_POSITIVE_REGULATION_OF_ACTIVATED_T_CELL_PROLIFERATION	25	0.4632	1.4973	0.0423	0.2471
		31	51	73	23
GO_REGULATION_OF_PHOSPHOLIPID_BIOSYNTHETIC_PROCESS	18	0.5187	1.5279	0.0423	0.2453
		61	9	89	48
GO_CATION_CATION_ANTIPORTER_ACTIVITY	26	0.4772	1.5386	0.0424	0.2469
		67	52	24	73
GO_REGULATION_OF_CELL_SHAPE	144	0.4446	1.5317	0.0424	0.2479
		64	95	24	03
GO_DRUG_METABOLIC_PROCESS	338	0.3786	1.5217	0.0425	0.2467
		77	63	53	22
GO_REGULATION_OF_PEPTIDYL_TYROSINE_PHOSPHORYLATION	247	0.3829	1.5012	0.0425	0.2476
		87	45	96	68
GO_CALCIUM_CHANNEL_COMPLEX	66	0.4357	1.4750	0.0425	0.2477
		62	16	96	86
GO_TEMPERATURE_HOMEOSTASIS	173	0.3777	1.4592	0.0428	0.2459
		86	59	57	91
GO_CHLORIDE_TRANSPORT	107	0.4014	1.4588	0.0429	0.2455
		69	38	69	23
GO_TROPOMYOSIN_BINDING	15	0.5495	1.5435	0.0430	0.2448
		92	15	53	33
GO_RUFFLE	167	0.4366	1.5606	0.0431	0.2471
		31	17	21	35
GO_REGULATION_OF_SUPRAMOLECULAR_FIBER_ORGANIZATION	338	0.3957	1.5225	0.0432	0.2473
		39	31	1	51
GO_FIBROBLAST_PROLIFERATION	87	0.4146	1.5225	0.0432	0.2470

		25	02	9	2
GO_LONG_TERM_MEMORY	33	0.4930	1.5309	0.0433	0.2471
		78	42	88	85
GO_VOLTAGE_GATED_POTASSIUM_CHANNEL_ACTIVITY_INVOLVED_IN_CARDIAC_MUSCLE_CELL_ACTION_POTENTIAL_REPOLARIZATION	15	0.5904	1.5422	0.0435	0.2460
		2	21	64	24
GO_SODIUM_CHANNEL_ACTIVITY	40	0.4463	1.4639	0.0435	0.2476
		88	44	64	69
GO_POSITIVE_REGULATION_OF_ACUTE_INFLAMMATORY_RESPONSE	29	0.5320	1.5006	0.0435	0.2475
		42	63	68	2
GO_NEGATIVE_REGULATION_OF_CYTOKINE_SECRETION	64	0.4625	1.5297	0.0436	0.2457
		09		59	91
GO_MONOCARBOXYLIC_ACID_TRANSPORT	159	0.3578	1.4209	0.0439	0.2486
		85	78	12	01
GO_NUCLEOSIDE_BISPHOSPHATE_METABOLIC_PROCESS	72	0.4335	1.5468	0.0439	0.2434
		43	63	33	46
GO_PLASMA_MEMBRANE_RAFT	108	0.4344	1.4989	0.0440	0.2473
		35	69	25	43
GO_POSITIVE_REGULATION_OF_PLASMA_MEMBRANE_BOUNDED_CELL_PROJECTION_ASSEMBLY	97	0.4115	1.4888	0.0443	0.2455
		05	84	04	72
GO_REGULATION_OF_LYMPHOCYTE_MIGRATION	61	0.4890	1.5634	0.0443	0.2490
		11	28	04	4
GO_MULTI_MULTICELLULAR_ORGANISM_PROCESS	220	0.3639	1.4339	0.0443	0.2449
		43	74	55	08
GO_POSITIVE_REGULATION_OF_NEUROLOGICAL_SYSTEM_PROCESS	57	0.4269	1.4796	0.0444	0.2469
		41	76	44	09
GO_HEART_PROCESS	284	0.3678	1.4111	0.0445	0.2498
		5	31	34	95
GO_MODIFICATION_BY_SYMBIONT_OF_HOST_MORPHOLOGY_OR_PHYSIOLOGY	46	0.4976	1.5562	0.0446	0.2429
		78	22	81	71

GO_RESPONSE_TO_REACTIVE_OXYGEN_SPECIES	221	0.4114	1.5239	0.0446	0.2467
		59		81	17
GO_INFLAMMATORY_RESPONSE_TO_ANTIGENIC_STIMULUS	46	0.4938	1.5524	0.0448	0.2443
		27	6	72	72
GO_PRESYNAPSE	477	0.3582	1.4275	0.0448	0.2469
		14	52	98	71
GO_POSITIVE_REGULATION_OF_HUMORAL_IMMUNE_RESPONSE	18	0.5818	1.5630	0.0450	0.2477
		91	11	82	42
GO_LEADING_EDGE_MEMBRANE	167	0.3918	1.4730	0.0450	0.2487
		78	26	98	62
GO_RACEMASE_AND_EPIMERASE_ACTIVITY	18	0.5532	1.5286	0.0451	0.2459
		14	49	61	42
GO_RESPONSE_TO_CARBOHYDRATE	226	0.3868	1.4806	0.0451	0.2470
		25	46	61	22
GO_CELLULAR_RESPONSE_TO_TOXIC_SUBSTANCE	232	0.4020	1.4947	0.0453	0.2476
		23	71	56	59
GO_COAGULATION	340	0.4002	1.4972	0.0453	0.2466
		49	45	61	21
GO_REGULATION_OF_PROTEIN_POLYMERIZATION	209	0.4121	1.5310	0.0453	0.2474
		32	59	61	13
GO_CALCIIUM_ION_TRANSMEMBRANE_TRANSPORT_VIA_HIGH_VOLTAGE_GATED_CALCIIUM_CHANNEL	15	0.5818	1.5305	0.0454	0.2469
		37	68	55	64
GO_EXTRINSIC_COMPONENT_OF_CYTOPLASMIC_SIDE_OF_PLASMA_MEMBRANE	87	0.4325	1.5178	0.0454	0.2493
		27	77	55	35
GO_POSITIVE_REGULATION_OF_SYNAPTIC_TRANSMISSION	169	0.3654	1.4313	0.0457	0.2448
		12	3	14	43
GO_LIPID_CATABOLIC_PROCESS	320	0.3913	1.5460	0.0460	0.2443
		52	04	25	72
GO_STRUCTURAL_CONSTITUENT_OF_EYE_LENS	19	0.5228	1.4825	0.0460	0.2469

		09	39	92	38
GO_RESPONSE_TO_IMMOBILIZATION_STRESS	27	0.4850	1.4937	0.0461	0.2476
		97	66	22	22
GO_NEGATIVE_REGULATION_OF_ALPHA_BETA_T_CELL_ACTIVATION	37	0.4992	1.5316	0.0461	0.2477
		32	3	22	21
GO_RENAL_SYSTEM_PROCESS	116	0.4081	1.4800	0.0461	0.2469
		41	95	85	6
GO_REGULATION_OF_CELL_CELL_ADHESION	389	0.4073	1.5371	0.0463	0.2467
		45	8	71	98
GO_PYRIDINE_CONTAINING_COMPOUND_BIOSYNTHETIC_PROCESS	36	0.4810	1.5568	0.0466	0.2447
		96	72	53	96
GO_CELLULAR_RESPONSE_TO_PEPTIDE_HORMONE_STIMULUS	313	0.3899	1.4923	0.0467	0.2461
		73	95	09	57
GO_PHOSPHOLIPASE_ACTIVITY	95	0.3676	1.4407	0.0469	0.2451
		38	47	39	04
GO_PROTEIN_TYROSINE_KINASE_ACTIVITY	130	0.3963	1.4425	0.0474	0.2449
		64	18	31	98
GO_PHOSPHATIDYLINOSITOL_BISPHOSPHATE_BINDING	103	0.4291	1.5254	0.0477	0.2474
		9	45	18	24
GO_REGULATION_OF_RECEPTOR_SIGNALING_PATHWAY_VIA_STAT	136	0.3686	1.4495	0.0479	0.2428
		11	39	17	84
GO_REGULATION_OF_LYMPHOCYTE_ACTIVATION	463	0.4237	1.5513	0.0481	0.2444
		19	1	17	96
GO_REGULATION_OF_WATER_LOSS_VIA_SKIN	24	0.5458	1.5125	0.0482	0.2478
		31	02	63	68
GO_CALCIIUM_ION_TRANSMEMBRANE_IMPORT_INTO_CYTOSOL	137	0.4181	1.4699	0.0484	0.2489
		78	38	85	06
GO_POSITIVE_REGULATION_OF_LYMPHOCYTE_ACTIVATION	317	0.4438	1.5557	0.0486	0.2432
		91	03	26	86

GO_REGULATION_OF_ACTIN_FILAMENT_BASED_PROCESS	375	0.3862	1.4939	0.0486	0.2477
		57	19	82	16
GO_C21_STEROID_HORMONE_METABOLIC_PROCESS	40	0.4423	1.4984	0.0487	0.2467
		66	44	8	72
GO_CALCIUM_MEDIATED_SIGNALING	216	0.3719	1.4461	0.0488	0.2434
		03	44	8	81
GO_REGULATION_OF_LEUKOCYTE_APOPTOTIC_PROCESS	86	0.4244	1.5087	0.0489	0.2475
		37	55	36	73
GO_SIALYLTRANSFERASE_ACTIVITY	20	0.5173	1.5026	0.0489	0.2472
		68	11	8	57
GO_SIALYLATION	20	0.5173	1.5026	0.0489	0.2476
		68	11	8	01
GO_POSITIVE_REGULATION_OF_CYTOSKELETON_ORGANIZATION	223	0.3989	1.4946	0.0490	0.2472
		8	48	41	1
GO_VOLTAGE_GATED_CALCIUM_CHANNEL_COMPLEX	43	0.4423	1.4515	0.0490	0.2439
		9	57	8	85
GO_POSITIVE_REGULATION_OF_AXON_EXTENSION	40	0.4516	1.4901	0.0490	0.2445
		23	22	8	62
GO_POSITIVE_REGULATION_OF_PEPTIDYL_TYROSINE_PHOSPHORYLATION	185	0.3709	1.4498	0.0491	0.2434
		53	22	8	47
GO_RESPONSE_TO_OSMOTIC_STRESS	77	0.4073	1.4648	0.0492	0.2490
		74	89	51	81
GO_NOREPINEPHRINE_SECRETION	17	0.5183	1.4609	0.0492	0.2467
		06	97	81	03
GO_ADAPTIVE_THERMOGENESIS	151	0.3827	1.4466	0.0493	0.2437
		58	44	56	56
GO_ACYLGLYCEROL_O_ACYLTRANSFERASE_ACTIVITY	21	0.5296	1.5509	0.0494	0.2445
		67	73	62	84
GO_MONOCARBOXYLIC_ACID_BIOSYNTHETIC_PROCESS	195	0.3851	1.5037	0.0498	0.2475

Table S7. Differentially expressed genes between the low- and high-risk score phenotypes of AML.

ID	logFC	logCPM	P value	FDR
PRSS2	6.337238	4.353632	6.80E-24	1.19E-19
KCNH6	5.541776	1.561788	1.10E-21	9.66E-18
PITX1	5.483422	2.478065	7.83E-20	4.57E-16
MMP7	4.881691	2.55811	1.15E-19	5.03E-16
RORB	-5.04382	2.821241	9.88E-18	3.46E-14
SHISA9	4.326463	0.598762	1.03E-16	2.99E-13
B3GALT5	4.748518	-0.18056	1.56E-15	3.90E-12
VSTM4	3.113241	1.959977	2.09E-15	4.57E-12
C10orf128	2.318549	3.958026	3.11E-15	6.05E-12
NGB	-5.17308	-0.29984	5.32E-15	9.32E-12
GSX1	-6.0151	-0.64406	9.08E-15	1.38E-11
CYP27C1	-3.32744	-1.20645	9.47E-15	1.38E-11
ATP1B4	5.260656	0.078957	1.19E-14	1.54E-11
PAX2	4.098893	-0.25361	1.23E-14	1.54E-11
POU3F3	-4.74485	-0.17649	2.66E-14	3.11E-11
PADI3	4.489192	1.68031	2.85E-14	3.12E-11
IL2RA	2.497148	3.756734	3.39E-14	3.49E-11
POU1F1	-4.45325	-0.39298	3.09E-13	3.01E-10
AC113554.2	6.264426	0.003677	3.63E-13	3.35E-10
COL20A1	3.134475	0.561081	3.93E-13	3.44E-10
IGDCC4	-2.54033	1.260003	7.07E-13	5.90E-10
FOXF1	-4.0597	-0.56797	2.08E-12	1.66E-09
HS3ST4	3.342905	-0.50929	2.69E-12	2.05E-09
FOXF2	-6.25474	1.568683	4.10E-12	3.00E-09
PRMT8	-4.47214	1.534989	6.22E-12	4.36E-09
GPR25	2.485625	-0.69446	1.09E-11	7.35E-09
OLAH	3.427005	0.33125	1.36E-11	8.80E-09
TDRD12	2.431229	0.42499	1.42E-11	8.89E-09
SIX4	-2.9321	-1.42223	1.62E-11	9.50E-09
ADGRG7	-4.52055	-0.88237	1.63E-11	9.50E-09
SLC25A48	-4.078	-1.30012	1.68E-11	9.50E-09
SPAG17	2.006611	1.10984	1.80E-11	9.87E-09
TMEM212	-3.00764	-0.64265	3.26E-11	1.73E-08
KCNIP1	2.513911	-0.52614	1.02E-10	5.27E-08
MNX1	3.884316	0.325852	1.10E-10	5.49E-08
CARD17	2.38506	-0.60679	1.97E-10	9.46E-08
KCNQ2	2.085463	-0.99496	2.00E-10	9.46E-08
THBS1	2.537816	7.140575	2.13E-10	9.80E-08
KIAA1644	-3.03664	-0.17129	2.19E-10	9.84E-08
EPHA3	3.783657	0.548415	3.01E-10	1.30E-07
DAAM2	2.89423	2.556268	3.03E-10	1.30E-07

ASPG	-2.62144	-0.9319	3.15E-10	1.31E-07
NDST3	-2.79545	2.817329	3.71E-10	1.51E-07
KRT79	3.59739	-1.44789	4.10E-10	1.63E-07
UTF1	2.096525	-1.43854	4.72E-10	1.84E-07
SOX11	-2.81395	-1.92898	5.08E-10	1.94E-07
MYO16	2.667611	1.056202	5.60E-10	2.05E-07
HPSE2	3.633398	-0.17942	7.15E-10	2.56E-07
HOXC6	-2.96755	-1.33546	8.66E-10	3.03E-07
RYR2	2.997265	1.312508	1.07E-09	3.69E-07
CFAP99	2.201252	-0.20906	1.10E-09	3.71E-07
PCSK1N	2.205766	-1.27669	1.27E-09	4.19E-07
TWIST1	-2.90863	0.205049	1.33E-09	4.31E-07
PTGIS	2.749934	1.259234	1.53E-09	4.80E-07
TSPAN15	2.000457	0.676756	1.62E-09	4.99E-07
PEG10	2.621378	1.948545	1.65E-09	4.99E-07
PDE10A	2.912956	-0.42993	2.09E-09	6.10E-07
FOXC2	-3.1041	-1.07462	2.22E-09	6.38E-07
FOXQ1	-4.45862	-0.80923	2.70E-09	7.51E-07
COL25A1	2.292583	0.012677	3.26E-09	8.78E-07
HES4	2.257776	0.568536	3.58E-09	9.51E-07
CTAG2	-4.59931	-2.01704	4.03E-09	1.04E-06
HIF3A	2.208469	0.770577	5.47E-09	1.39E-06
PTGFR	2.540777	1.055032	6.34E-09	1.56E-06
SYCE1	-2.01173	-1.76868	6.86E-09	1.65E-06
EFNB3	-2.4247	-0.09749	7.19E-09	1.70E-06
SHOX2	-2.86894	0.312509	7.93E-09	1.85E-06
ONECUT1	-3.03645	-2.27919	8.77E-09	2.02E-06
SEMA3D	2.401084	-0.51204	9.02E-09	2.02E-06
IL1R2	2.974069	3.876353	9.22E-09	2.02E-06
GFRA3	-2.16514	-0.88812	9.33E-09	2.02E-06
IL12B	-2.40437	-1.52062	1.04E-08	2.22E-06
PNMA5	2.267199	2.51465	1.12E-08	2.35E-06
CNTNAP5	-4.03336	-0.56058	1.18E-08	2.46E-06
VENTX	2.152509	3.368826	1.25E-08	2.58E-06
SCN2A	2.787116	1.868522	1.42E-08	2.88E-06
RASEF	2.290742	-1.96127	1.43E-08	2.88E-06
PCDH10	-3.76852	-0.05252	1.62E-08	3.23E-06
HOXC10	-2.82591	-2.04091	2.10E-08	4.00E-06
COL2A1	-2.63417	2.706522	2.29E-08	4.27E-06
COL21A1	2.705653	-0.58239	3.40E-08	6.07E-06
GPR37	3.637029	-2.35464	3.91E-08	6.85E-06
SDC2	2.582024	1.850856	4.12E-08	7.04E-06
GABRA2	3.026092	0.582386	4.14E-08	7.04E-06
SYT4	-3.81246	-2.71129	4.81E-08	8.05E-06

KCNK1	3.265755	-0.25163	4.82E-08	8.05E-06
ADAMTS19	3.386061	-2.19396	5.14E-08	8.49E-06
STOML3	3.032395	-1.86124	5.70E-08	9.24E-06
SOX1	-2.38363	-2.48179	7.30E-08	1.16E-05
HOXC12	-2.68913	-2.77552	7.55E-08	1.18E-05
VAT1L	3.447382	2.886085	7.64E-08	1.18E-05
SPATA8	-4.41164	-2.70068	7.99E-08	1.23E-05
WSCD2	-2.34656	-1.53964	8.29E-08	1.26E-05
KIAA1217	-2.13306	2.765079	9.62E-08	1.43E-05
EPHA5	4.165896	-1.82052	1.23E-07	1.78E-05
ANXA8L1	-2.77385	0.082117	1.26E-07	1.81E-05
RNF182	2.846523	0.787708	1.66E-07	2.33E-05
COL6A5	2.645493	1.52457	2.58E-07	3.35E-05
RELN	2.246629	0.453309	2.65E-07	3.41E-05
OVCH2	3.589626	-1.60188	2.68E-07	3.42E-05
C1orf87	-3.7385	-2.83729	2.78E-07	3.53E-05
CSMD3	2.586262	-1.62901	3.62E-07	4.47E-05
MRAP2	2.778915	-1.76006	3.79E-07	4.62E-05
COL11A1	2.893413	0.93202	4.66E-07	5.52E-05
CDH18	2.922678	-2.2801	4.96E-07	5.76E-05
FAM155B	2.942972	0.146254	5.33E-07	6.06E-05
CYP2C9	2.736363	-1.84219	5.42E-07	6.13E-05
HCN1	4.076272	-2.27702	6.00E-07	6.70E-05
PNMA6F	3.219003	-2.29671	7.95E-07	8.09E-05
TACSTD2	-2.92808	2.756766	8.14E-07	8.20E-05
OLIG2	-2.04449	1.719206	8.26E-07	8.23E-05
DBX2	3.83735	-2.11087	8.27E-07	8.23E-05
BOD1L2	2.695111	-2.54634	1.09E-06	0.000102
GPC3	2.298422	-0.85072	1.22E-06	0.000109
CD163	2.217017	7.133314	1.25E-06	0.000111
C10orf90	-2.08901	-3.31043	1.37E-06	0.000118
DYNAP	-3.17443	-1.44136	1.37E-06	0.000118
PTCHD4	-2.56665	-1.78882	1.65E-06	0.000135
DNAJC5G	-2.13841	-2.75997	1.76E-06	0.000141
EDN3	-3.00727	-0.98516	1.86E-06	0.000148
FIGN	3.525482	2.576392	2.10E-06	0.000163
NETO1	-2.319	2.139386	2.19E-06	0.000169
CFHR3	2.788993	-1.92049	2.51E-06	0.000188
NDST4	3.37827	-2.45377	2.59E-06	0.000193
EPYC	-5.15562	-0.55902	3.21E-06	0.000228
HOXC9	-2.30511	-2.53638	3.27E-06	0.000229
TGM3	2.088165	-0.77179	3.65E-06	0.000253
MINDY4B	-3.08729	-2.94037	3.80E-06	0.000261
ADCY2	2.063218	2.406412	4.15E-06	0.000281

PDPN	-3.48874	1.854949	4.31E-06	0.000287
FGF13	-2.12361	2.011179	4.34E-06	0.000288
GATA5	2.094976	-1.36631	4.35E-06	0.000288
GABRA1	3.509283	-2.19216	4.38E-06	0.000288
NTRK3	-2.19507	1.457385	4.48E-06	0.000293
PI15	3.629583	2.406584	4.86E-06	0.000308
FAM69C	3.111209	-0.48261	5.20E-06	0.000323
KCNT2	2.26846	-0.709	5.61E-06	0.000341
LEP	-2.30923	0.386361	5.87E-06	0.000348
GABRE	-2.6809	5.687871	6.19E-06	0.000363
PLPPR1	3.076174	-2.59667	6.63E-06	0.000376
NPHS2	2.981031	-2.39307	7.17E-06	0.000396
GJB2	-2.06785	-1.25731	7.84E-06	0.000425
FAM19A5	-2.18047	0.990211	1.04E-05	0.000533
MAGEC3	3.690792	-2.51764	1.13E-05	0.000564
IRX2	-2.34074	-1.62489	1.14E-05	0.000567
NMU	2.194519	0.900156	1.21E-05	0.000581
S100A16	2.197897	2.648733	1.21E-05	0.000581
DLL3	-2.11031	0.829608	1.21E-05	0.000581
T	-2.6782	-2.7216	1.26E-05	0.000603
11-Mar	-2.72015	-3.03202	1.28E-05	0.000608
GABRA4	2.161868	-1.08015	1.33E-05	0.000623
ZNF385D	-2.00165	2.615191	1.64E-05	0.000708
ADGRB3	2.122305	-0.91305	1.82E-05	0.000769
MAGEC1	3.710144	-3.27869	2.20E-05	0.000894
DKK1	2.641456	-0.72302	2.51E-05	0.000981
OXGR1	2.003348	-2.22852	2.88E-05	0.001093
GLI2	2.20113	2.085312	3.47E-05	0.001251
OR10H5	-2.50516	-3.17752	3.79E-05	0.001337
CADM2	2.217157	-1.73397	4.93E-05	0.001622
NKX3-2	-2.86506	-0.56452	5.34E-05	0.001712
NTS	3.376353	-2.86376	5.52E-05	0.001765
SLC7A3	-2.21005	-1.55394	5.96E-05	0.001873
HYAL4	-2.25072	-2.76727	6.02E-05	0.00188
CTNND2	-2.01914	-1.1094	6.62E-05	0.002002
FSTL5	-2.34318	-2.63303	6.74E-05	0.00201
ANXA8	-2.18258	2.215598	8.35E-05	0.002383
TDRD5	-2.16108	-2.00604	8.71E-05	0.002453
ASTN1	-2.35713	-0.92728	9.13E-05	0.002518
SP9	-2.64215	-3.14032	9.68E-05	0.002627
RASL12	-2.29822	0.621972	0.000102	0.002705
KRT5	2.194161	-1.78022	0.000108	0.002844
CYP2C18	2.212016	-2.41036	0.00012	0.003076
ROS1	2.533384	-1.24823	0.000216	0.004543

C2CD4B	-2.28554	-1.19619	0.000242	0.004895
NROB1	2.652004	-1.59394	0.000311	0.005768
SLC6A2	-2.01326	-2.41336	0.000312	0.00577
RTL1	-2.01707	-0.33277	0.000313	0.00577
GABRG2	2.393963	-3.337	0.000317	0.005812
MT1H	-2.70274	-2.51349	0.00039	0.006731
PRL	-2.08768	-0.81265	0.000415	0.006951
TRDN	2.157505	-0.90334	0.000957	0.012233
BLID	-2.26027	-1.47306	0.001134	0.013562
BRINP2	-2.21512	0.208256	0.001922	0.01923
GABRB2	-2.06031	-0.12858	0.001978	0.019636
SLC10A2	-2.60517	2.193572	0.002874	0.024911

Table S8. Functional enrichment results of the differentially expressed genes between the low- and high-risk score phenotypes of AML.

Category	Term	Count	%	P Value	Genes
GOTERM_MF_DIRECT	GO:0043565~sequence-specific DNA binding	21	0.085286	4.79E-08	IRX2, GSX1, RORB, VENTX, SIX4, POU1F1, NROB1, GLI2, SHOX2, HOXC6, HOXC10, DBX2, HOXC12, FOXQ1, HOXC9, FOXF1, FOXF2, MNX1, POU3F3, FOXC2, PITX1
GOTERM_CC_DIRECT	GO:1902711~GABA-A receptor complex	6	0.024367	5.64E-07	GABRG2, GABRE, GABRA2, GABRA1, GABRA4, GABRB2
GOTERM_MF_DIRECT	GO:0004890~GABA-A receptor activity	6	0.024367	6.01E-07	GABRG2, GABRE, GABRA2, GABRA1, GABRA4, GABRB2
GOTERM_MF_DIRECT	GO:0005230~extracellular ligand-gated ion channel activity	6	0.024367	1.11E-05	GABRG2, GABRE, GABRA2, GABRA1, GABRA4, GABRB2
GOTERM_BP_DIRECT	GO:0007214~gamma-aminobutyric acid signaling pathway	5	0.020306	4.84E-05	GABRG2, GABRA2, GABRA1, GABRA4, GABRB2
GOTERM_BP_DIRECT	GO:0071300~cellular response to retinoic acid	7	0.028429	5.03E-05	LEP, NTRK3, T, BRINP2, RORB, PAX2, EPHA3
GOTERM_CC_DIRECT	GO:0005887~integral component of plasma membrane	30	0.121837	6.50E-05	ADCY2, GABRB2, CADM2, SLC6A2, ATP1B4, PLPPR1, GPC3, GPR25, HCN1, GABRG2, GABRA1, EFNB3, GABRA4, PDPN, SCN2A, COL25A1, TSPAN15, OR10H5, KCNK1, PTGFR, SLC10A2, CD163, EPHA3, EPHA5, NTRK3, GPR37, SLC7A3, TACSTD2, NPHS2, KCNH6
GOTERM_CC_DIRECT	GO:0034707~chloride channel complex	6	0.024367	9.90E-05	GABRG2, GABRE, GABRA2, GABRA1, GABRA4, GABRB2
GOTERM_BP_DIRECT	GO:0001501~skeletal system development	8	0.03249	3.16E-04	SHOX2, HOXC10, SOX11, NKX3-2, DLL3, COL2A1, GLI2, PITX1
GOTERM_MF_DIRECT	GO:0003705~transcription factor activity, RNA polymerase II distal enhancer	6	0.024367	3.28E-04	T, GATA5, FOXF1, FOXF2, FOXC2, OLIG2

	sequence-specific binding					
GOTERM_BP_DIRECT	GO:0030574~collagen catabolic process	6	0.024367	3.37E-04	COL6A5, PRSS2, MMP7, COL25A1, COL2A1, COL11A1	
GOTERM_CC_DIRECT	GO:0005886~plasma membrane	60	0.243675	3.51E-04	IGDCC4, ADCY2, SYT4, GABRB2, SLC6A2, CADM2, FGF13, STOML3, KCNIP1, SDC2, GPC3, PRMT8, KCNQ2, ROS1, ADGRB3, GABRG2, EFNB3, PDPN, COL25A1, OXGR1, CD163, TRDN, ANXA8L1, KCNH6, RYR2, C2CD4B, RELN, IL1R2, CSMD3, MRAP2, ANXA8, DYNAP, HPSE2, KRT5, GPR25, HCN1, GABRE, GABRA2, VSTM4, GABRA1, S100A16, IL2RA, GABRA4, PCDH10, TSPAN15, SLC10A2, OR10H5, PTGFR, KCNK1, GJB2, EPHA3, EPHA5, DKK1, SLC7A3, GPR37, CDH18, NPHS2, FAM155B, MYO16, GFRA3	
GOTERM_BP_DIRECT	GO:0006366~transcription from RNA polymerase II promoter	15	0.060919	3.55E-04	ONECUT1, SOX1, SOX11, GSX1, SIX4, GLI2, PAX2, POU1F1, GATA5, FOXF1, FOXF2, NKX3-2, HIF3A, FOXC2, PITX1	
GOTERM_CC_DIRECT	GO:0030425~dendrite	12	0.048735	3.68E-04	EPHA5, HCN1, GABRA2, ADCY2, BRINP2, SYT4, CTNND2, FGF13, RELN, OR10H5, KCNK1, KCNIP1	
GOTERM_BP_DIRECT	GO:0001764~neuron migration	7	0.028429	4.72E-04	NTRK3, SOX1, ASTN1, FGF13, RELN, GFRA3, TWIST1	
GOTERM_MF_DIRECT	GO:0022851~GABA-gated chloride ion channel activity	3	0.012184	8.02E-04	GABRE, GABRA2, GABRA1	
GOTERM_MF_DIRECT	GO:0008503~benzodiazepine receptor activity	3	0.012184	0.001195	GABRG2, GABRA2, GABRA4	
GOTERM_MF_DIRECT	GO:0001077~transcriptional activator activity, RNA polymerase II core promoter proximal region	9	0.036551	0.001411	ONECUT1, SOX1, SOX11, GSX1, FOXC2, SIX4, GLI2, POU1F1, PITX1	
GOTERM_MF_DIRECT	GO:0005004~GPI-linked ephrin receptor activity	3	0.012184	0.001663	EPHA5, NTRK3, EPHA3	

GOTERM_BP_DIRECT	GO:0051932~synaptic transmission, GABAergic	3	0.012184	0.001791	GABRG2, GABRA1, GABRB2
GOTERM_BP_DIRECT	GO:0006027~glycosaminoglycan catabolic process	4	0.016245	0.001813	GPC3, HPSE2, HYAL4, SDC2
GOTERM_CC_DIRECT	GO:0005581~collagen trimer	6	0.024367	0.001839	COL21A1, COL6A5, COL25A1, COL2A1, COL11A1, COL20A1
GOTERM_BP_DIRECT	GO:1902476~chloride transmembrane transport	6	0.024367	0.001849	GABRG2, GABRE, GABRA2, GABRA1, GABRA4, GABRB2
GOTERM_MF_DIRECT	GO:0005249~voltage-gated potassium channel activity	5	0.020306	0.001882	HCN1, KCNT2, KCNH6, KCNK1, KCNQ2
GOTERM_MF_DIRECT	GO:0005509~calcium ion binding	16	0.06498	0.002212	S100A16, SYT4, RASEF, PCDH10, PADI3, DLL3, KCNIP1, ANXA8, ANXA8L1, CDH18, PRSS2, FSTL5, C2CD4B, RYR2, TGM3, THBS1
GOTERM_BP_DIRECT	GO:0046887~positive regulation of hormone secretion	3	0.012184	0.002373	EDN3, SOX11, NMU
GOTERM_BP_DIRECT	GO:0071420~cellular response to histamine	3	0.012184	0.002373	GABRG2, GABRA1, GABRB2
GOTERM_BP_DIRECT	GO:0048706~embryonic skeletal system development	4	0.016245	0.002754	HOXC6, T, NKX3-2, KIAA1217
GOTERM_CC_DIRECT	GO:0016021~integral component of membrane	67	0.272103	0.00319	IGDCC4, NDST3, NDST4, ADCY2, SYT4, B3GALT5, CADM2, SLC6A2, GABRB2, STOML3, PLPPR1, RNF182, SDC2, PTGIS, SEMA3D, ROS1, ADGRB3, GABRG2, PDPN, CNTNAP5, SCN2A, DLL3, COL25A1, OXGR1, HYAL4, CD163, TRDN, KCNT2, TACSTD2, KCNH6, RYR2, DNAJC5G, IL1R2, TMEM212, HS3ST4, FAM69C, ASTN1, CSMD3, PTCHD4, MRAP2, RTL1, NETO1, FAM19A5, DYNAP, SLC25A48, HCN1, GABRE, GABRA2, VSTM4, GABRA1, IL2RA, GABRA4, PCDH10, KIAA1644, TSPAN15, C10ORF128, ADGRG7, PTGFR, OR10H5, KCNK1, EPHA3,

					GJB2, NTRK3, EPHA5, WSCD2, CDH18, FAM155B
GOTERM_CC_DIRECT	GO:0005578~proteinaceous extracellular matrix	9	0.036551	0.004128	ADAMTS19, GPC3, COL21A1, HPSE2, COL6A5, MMP7, RELN, EPYC, COL11A1
GOTERM_MF_DIRECT	GO:0005267~potassium channel activity	4	0.016245	0.004526	HCN1, KCNK1, KCNQ2, KCNIP1
GOTERM_BP_DIRECT	GO:0008284~positive regulation of cell proliferation	12	0.048735	0.00465	HOXC10, LEP, NTRK3, EDN3, T, HPSE2, DYNAP, SOX11, POU3F3, THBS1, POU1F1, PTGFR
GOTERM_BP_DIRECT	GO:0045944~positive regulation of transcription from RNA polymerase II promoter	19	0.077164	0.00506	UTF1, ONECUT1, SOX1, SOX11, GSX1, ATP1B4, SIX4, POU1F1, GLI2, PAX2, SHOX2, GATA5, FOXF1, FOXF2, HIF3A, FOXC2, POU3F3, PITX1, TWIST1
GOTERM_CC_DIRECT	GO:0005576~extracellular region	27	0.109654	0.005135	EDN3, IL1R2, COL21A1, OVCH2, MMP7, FGF13, COL2A1, NETO1, FAM19A5, BRINP2, COL6A5, PRSS2, FSTL5, THBS1, COL11A1, PRL, NMU, VSTM4, COL25A1, PTGFR, EPHA3, CD163, LEP, DKK1, NTS, IL12B, COL20A1
GOTERM_CC_DIRECT	GO:0030424~axon	8	0.03249	0.005381	EPHA5, HCN1, GABRG2, GABRA2, SYT4, CADM2, SCN2A, FGF13
GOTERM_BP_DIRECT	GO:0071805~potassium ion transmembrane transport	6	0.024367	0.005737	HCN1, KCNT2, KCNH6, KCNK1, KCNQ2, KCNIP1
GOTERM_BP_DIRECT	GO:0001756~somitogenesis	4	0.016245	0.005828	T, FOXF1, DLL3, FOXC2
GOTERM_BP_DIRECT	GO:0006821~chloride transport	4	0.016245	0.006258	GABRG2, GABRA2, GABRA1, GABRA4
GOTERM_CC_DIRECT	GO:0045202~synapse	7	0.028429	0.007682	GABRE, GABRA2, SHISA9, GABRA1, GABRB2, CADM2, KCNK1
GOTERM_BP_DIRECT	GO:0048013~ephrin receptor signaling pathway	5	0.020306	0.008819	EPHA5, NTRK3, EFNB3, SDC2, EPHA3
GOTERM_MF_DIRECT	GO:0001085~RNA polymerase II transcription factor binding	4	0.016245	0.008844	T, GATA5, POU1F1, PITX1
GOTERM_BP_DIRECT	GO:0009653~anatomical structure morphogenesis	5	0.020306	0.011114	GPC3, ONECUT1, MNX1, SIX4, PITX1

GOTERM_MF_DIRECT	GO:0071837~HMG box domain binding	3	0.012184	0.011353	UTF1, POU3F3, OLIG2
GOTERM_BP_DIRECT	GO:0048557~embryonic digestive tract morphogenesis	3	0.012184	0.012194	SHOX2, SOX11, FOXF1
GOTERM_BP_DIRECT	GO:0042472~inner ear morphogenesis	4	0.016245	0.012898	COL2A1, SIX4, PAX2, COL11A1
GOTERM_BP_DIRECT	GO:0034220~ion transmembrane transport	7	0.028429	0.014571	TRDN, GABRG2, GABRA2, GABRA1, GABRA4, GABRB2, RYR2
GOTERM_MF_DIRECT	GO:0016705~oxidoreductase activity, acting on paired donors, with incorporation or reduction of molecular oxygen	4	0.016245	0.014947	CYP27C1, PTGIS, CYP2C9, CYP2C18
GOTERM_CC_DIRECT	GO:0045211~postsynaptic membrane	7	0.028429	0.015487	GABRG2, GABRE, GABRA2, GABRA1, GABRA4, GABRB2, NETO1
GOTERM_MF_DIRECT	GO:0004497~monooxygenase activity	4	0.016245	0.01566	CYP27C1, PTGIS, CYP2C9, CYP2C18
GOTERM_MF_DIRECT	GO:0005544~calcium-dependent phospholipid binding	4	0.016245	0.01566	ANXA8, SYT4, ANXA8L1, C2CD4B
GOTERM_BP_DIRECT	GO:0006810~transport	9	0.036551	0.017315	GABRG2, GABRA1, GABRA4, SLC6A2, GABRB2, SLC25A48, ATP1B4, SLC10A2, GJB2
GOTERM_CC_DIRECT	GO:0043204~perikaryon	5	0.020306	0.018432	CTNND2, ASTN1, PDE10A, NGB, KCNK1
GOTERM_BP_DIRECT	GO:0090102~cochlea development	3	0.012184	0.021202	NTRK3, GABRB2, PAX2
GOTERM_BP_DIRECT	GO:0072189~ureter development	2	0.008122	0.027965	FOXF1, PAX2
GOTERM_BP_DIRECT	GO:0035116~embryonic hindlimb morphogenesis	3	0.012184	0.028338	GPC3, PITX1, TWIST1
GOTERM_BP_DIRECT	GO:0021983~pituitary gland development	3	0.012184	0.028338	GLI2, NROB1, PITX1
GOTERM_BP_DIRECT	GO:0007507~heart development	6	0.024367	0.02954	SHOX2, NTRK3, GATA5, FOXF1, FOXC2, GLI2

GOTERM_CC_DIRECT	GO:0030054~cell junction	10	0.040612	0.031414	GABRG2, GABRE, GABRA2, SHISA9, GABRA1, SYT4, GABRA4, GABRB2, KCNK1, NETO1
GOTERM_MF_DIRECT	GO:0008144~drug binding	4	0.016245	0.031734	GABRA1, IL2RA, CYP2C9, PDE10A
GOTERM_BP_DIRECT	GO:0030324~lung development	4	0.016245	0.034882	GPC3, PDPN, FOXF1, GLI2
GOTERM_MF_DIRECT	GO:0015016~[heparan sulfate]-glucosamine N-sulfotransferase activity	2	0.008122	0.035767	NDST3, NDST4
GOTERM_MF_DIRECT	GO:0020037~heme binding	5	0.020306	0.036108	CYP27C1, PTGIS, CYP2C9, CYP2C18, NGB
GOTERM_CC_DIRECT	GO:0005788~endoplasmic reticulum lumen	6	0.024367	0.036447	COL21A1, COL25A1, COL2A1, THBS1, COL11A1, COL20A1
GOTERM_BP_DIRECT	GO:1900138~negative regulation of phospholipase A2 activity	2	0.008122	0.037112	ANXA8, ANXA8L1
GOTERM_BP_DIRECT	GO:0030198~extracellular matrix organization	6	0.024367	0.037961	HPSE2, FOXF1, FOXF2, COL2A1, THBS1, COL11A1
GOTERM_BP_DIRECT	GO:0000122~negative regulation of transcription from RNA polymerase II promoter	13	0.052796	0.039456	SOX11, GLI2, NROB1, POU1F1, LEP, SHOX2, T, DKK1, FOXF1, NKX3-2, FOXC2, OLIG2, TWIST1
GOTERM_BP_DIRECT	GO:0009952~anterior/posterior pattern specification	4	0.016245	0.039686	HOXC10, HOXC6, HOXC9, GLI2
GOTERM_BP_DIRECT	GO:0006814~sodium ion transport	4	0.016245	0.040937	SCN2A, ATP1B4, FGF13, SLC10A2
GOTERM_CC_DIRECT	GO:0016529~sarcoplasmic reticulum	3	0.012184	0.041218	TRDN, RYR2, THBS1
GOTERM_BP_DIRECT	GO:0006813~potassium ion transport	4	0.016245	0.042208	HCN1, ATP1B4, KCNK1, KCNQ2
GOTERM_MF_DIRECT	GO:0000978~RNA polymerase II core promoter proximal region sequence-specific DNA binding	8	0.03249	0.043107	T, SOX1, GSX1, NKX3-2, SIX4, GLI2, POU1F1, PITX1

GOTERM_BP_DIRECT	GO:0007166~cell surface receptor signaling pathway	7	0.028429	0.045198	EDN3, IL2RA, TACSTD2, TSPAN15, ADGRG7, PRL, ADGRB3
GOTERM_BP_DIRECT	GO:0061743~motor learning	2	0.008122	0.046175	DKK1, ADGRB3
GOTERM_BP_DIRECT	GO:0060351~cartilage development involved in endochondral bone morphogenesis	2	0.008122	0.046175	SHOX2, COL2A1
GOTERM_BP_DIRECT	GO:0000904~cell morphogenesis involved in differentiation	2	0.008122	0.046175	DKK1, RELN
KEGG_PATHWAY	hsa05032:Morphine addiction	8	0.03249	6.80E-06	GABRG2, GABRE, GABRA2, ADCY2, GABRA1, GABRA4, GABRB2, PDE10A
KEGG_PATHWAY	hsa05033:Nicotine addiction	6	0.024367	1.44E-05	GABRG2, GABRE, GABRA2, GABRA1, GABRA4, GABRB2
KEGG_PATHWAY	hsa04727:GABAergic synapse	7	0.028429	5.32E-05	GABRG2, GABRE, GABRA2, ADCY2, GABRA1, GABRA4, GABRB2
KEGG_PATHWAY	hsa04723:Retrograde endocannabinoid signaling	7	0.028429	1.40E-04	GABRG2, GABRE, GABRA2, ADCY2, GABRA1, GABRA4, GABRB2
KEGG_PATHWAY	hsa04080:Neuroactive ligand-receptor interaction	10	0.040612	3.05E-04	LEP, GABRG2, GABRE, GABRA2, GABRA1, GABRA4, GABRB2, PRSS2, PTGFR, PRL
KEGG_PATHWAY	hsa04974:Protein digestion and absorption	6	0.024367	6.43E-04	COL21A1, COL6A5, PRSS2, ATP1B4, COL2A1, COL11A1
KEGG_PATHWAY	hsa04512:ECM-receptor interaction	5	0.020306	0.004983	COL6A5, RELN, COL2A1, THBS1, COL11A1
KEGG_PATHWAY	hsa04151:PI3K-Akt signaling pathway	8	0.03249	0.019151	IL2RA, COL6A5, FGF13, RELN, COL2A1, THBS1, COL11A1, PRL
KEGG_PATHWAY	hsa05205:Proteoglycans in cancer	6	0.024367	0.0212	GPC3, HPSE2, IL12B, THBS1, SDC2, TWIST1
KEGG_PATHWAY	hsa04972:Pancreatic secretion	4	0.016245	0.037871	ADCY2, PRSS2, ATP1B4, RYR2

Table S9. Survival analysis results of the differentially expressed genes between the low- and high-risk score phenotypes of AML.

ID	P value	HR	Low 95%CI	High 95%CI
MMP7	2.24E-05	2.760666	1.726347	4.414683
SIX4	2.60E-05	0.360252	0.223864	0.579732
GABRE	7.15E-05	0.372	0.228348	0.606022
IGDCC4	0.000117	0.392345	0.24372	0.631606
UTF1	0.000931	2.155005	1.367858	3.395123
IL2RA	0.00103	2.206142	1.375399	3.538654
STOML3	0.001044	2.163838	1.36399	3.432721
C10orf128	0.001303	2.168025	1.352741	3.474674
C10orf90	0.001325	0.471989	0.298454	0.746427
FGF13	0.001455	0.473766	0.299107	0.750413
T	0.002079	0.477608	0.298376	0.764502
GPC3	0.00488	1.941881	1.223309	3.082541
RASEF	0.004928	1.952379	1.224665	3.112512
SYCE1	0.005001	0.522106	0.331653	0.821929
EFNB3	0.005315	0.513912	0.321806	0.8207
NMU	0.006361	0.526611	0.332226	0.834731
LEP	0.007796	0.533719	0.336083	0.847577
VSTM4	0.010747	1.860709	1.154692	2.998409
COL2A1	0.015733	0.563063	0.353279	0.897421
OXGR1	0.01582	1.780818	1.114443	2.845649
ASPG	0.016824	0.571091	0.360771	0.904021
BLID	0.01772	0.579165	0.368773	0.909589
COL11A1	0.020845	0.585733	0.372106	0.922003
HOXC12	0.024689	0.58384	0.365066	0.933717
HS3ST4	0.033701	1.664613	1.040056	2.66422
CADM2	0.039749	0.617336	0.389819	0.977645
ROS1	0.040616	1.61324	1.020641	2.549908
RELN	0.04138	0.619882	0.391504	0.981479
CYP2C9	0.058136	1.567642	0.984626	2.495872
DAAM2	0.058211	0.643175	0.407374	1.015464
IRX2	0.063665	0.651261	0.413924	1.024683
EPHA3	0.065971	0.650742	0.411627	1.028761
PDPN	0.067171	0.648348	0.40767	1.031115
TACSTD2	0.068012	0.652229	0.41216	1.032129
CD163	0.069536	1.581087	0.964052	2.593051
KCNK1	0.070449	1.566071	0.963261	2.54612
THBS1	0.078375	1.539115	0.952239	2.487688
PADI3	0.079614	1.495129	0.953606	2.344165
NDST3	0.08568	0.654094	0.403082	1.06142
SYT4	0.086827	0.67484	0.430236	1.05851

RORB	0.095974	0.681003	0.433214	1.07052
NKX3-2	0.096889	0.68	0.431287	1.072138
SPAG17	0.098374	1.472879	0.930562	2.331249
FAM19A5	0.098598	0.67225	0.419636	1.076936
GFRA3	0.0991	0.684649	0.436452	1.073989
CFAP99	0.099473	0.678273	0.427388	1.076431
MNX1	0.101129	1.525376	0.920754	2.527029
BOD1L2	0.10207	1.461605	0.927315	2.303738
SLC6A2	0.103797	0.680612	0.428122	1.082011
ATP1B4	0.106948	0.690924	0.440766	1.08306
GABRA2	0.110214	0.6916	0.439887	1.087348
FAM69C	0.110596	1.444515	0.919426	2.269483
IL1R2	0.111214	1.44945	0.917984	2.288608
ANXA8	0.112049	0.683779	0.427857	1.092782
COL21A1	0.116971	0.697152	0.444061	1.094492
TMEM212	0.121223	0.695964	0.440043	1.100723
DLL3	0.12386	0.692833	0.434145	1.105663
VENTX	0.124418	1.424553	0.907078	2.237242
SLC10A2	0.127746	1.448755	0.899116	2.334394
NR0B1	0.129163	1.429098	0.901106	2.266462
NETO1	0.129849	0.708402	0.453468	1.106656
NTRK3	0.138372	0.707575	0.447795	1.118062
CYP2C18	0.147356	1.403987	0.887209	2.221776
MRAP2	0.151054	1.390501	0.886615	2.180758
NPHS2	0.151273	1.40659	0.882679	2.241467
POU3F3	0.151528	0.712743	0.44869	1.13219
11-Mar	0.159922	0.726317	0.464991	1.134509
EPYC	0.165158	0.721626	0.455227	1.143922
SHISA9	0.174224	0.726253	0.457838	1.152032
CSMD3	0.17552	0.73407	0.469337	1.148127
MINDY4B	0.1925	0.743182	0.475587	1.161342
PDE10A	0.194174	0.734044	0.460273	1.170654
CTAG2	0.196617	0.745194	0.476859	1.164526
KIAA1217	0.197204	0.742585	0.472385	1.167335
TDRD12	0.201226	0.745768	0.475595	1.16942
HOXC10	0.204615	0.749367	0.479829	1.170315
PRMT8	0.210106	1.346835	0.84544	2.145588
SDC2	0.210684	1.342672	0.846422	2.129868
DKK1	0.218604	1.329512	0.844564	2.092915
KRT79	0.219777	1.33358	0.84205	2.112033
SLC7A3	0.223391	0.757082	0.48372	1.184928
OLIG2	0.232349	0.758209	0.481411	1.194159
EPHA5	0.247542	1.30692	0.830252	2.057254
GABRB2	0.249274	0.768254	0.490599	1.203048

EDN3	0.254894	0.766163	0.484377	1.211877
KCNIP1	0.254952	1.306507	0.824527	2.07023
FAM155B	0.259871	1.30282	0.822309	2.064115
FIGN	0.265544	0.773938	0.492933	1.215134
SPATA8	0.277174	0.780281	0.498786	1.220641
IL12B	0.286144	1.28279	0.811735	2.027202
CFHR3	0.307305	1.267668	0.803989	1.99876
MYO16	0.316582	0.789746	0.497587	1.253447
PCSK1N	0.318418	0.796953	0.510272	1.244697
RNF182	0.320742	0.795773	0.50694	1.249172
SLC25A48	0.326098	0.797471	0.507632	1.252797
DBX2	0.336693	1.251842	0.79166	1.979523
HCN1	0.338964	0.7964	0.499435	1.269941
TDRD5	0.351323	1.24178	0.787549	1.957995
WSCD2	0.355229	0.806199	0.510617	1.272883
HIF3A	0.359993	1.233773	0.786841	1.934567
ONECUT1	0.378707	0.816847	0.520619	1.281626
HYAL4	0.378798	0.817312	0.521532	1.280841
FSTL5	0.387386	0.817762	0.518211	1.290467
PCDH10	0.387476	0.820009	0.522834	1.286096
NTS	0.400347	0.816753	0.509585	1.309074
COL6A5	0.405461	1.210353	0.77192	1.897805
PLPPR1	0.406619	1.21582	0.766345	1.928922
SHOX2	0.411453	1.207043	0.770385	1.891201
PTGIS	0.412745	1.20696	0.769502	1.893112
ADCY2	0.420329	1.206645	0.764125	1.905437
PNMA5	0.425259	0.829796	0.524555	1.312659
TSPAN15	0.429561	0.833883	0.53132	1.308743
DYNAP	0.43274	0.831017	0.523322	1.319625
POU1F1	0.433909	1.198278	0.761721	1.885033
NDST4	0.434365	1.195694	0.76386	1.871658
GSX1	0.436473	0.834617	0.529342	1.315946
MT1H	0.438096	0.829234	0.516562	1.331165
RTL1	0.439223	0.836618	0.532378	1.314721
ASTN1	0.440023	0.824985	0.506245	1.344409
B3GALT5	0.447772	1.18901	0.760446	1.859099
FOXF2	0.448046	1.19475	0.754466	1.89197
HES4	0.469402	1.184219	0.749017	1.872287
GATA5	0.483725	1.172908	0.750616	1.832778
PITX1	0.505624	1.172267	0.734155	1.871826
DNAJC5G	0.513248	0.86119	0.55022	1.347915
ANXA8L1	0.514931	0.860861	0.548391	1.351376
FOXC2	0.530767	0.860274	0.537355	1.377248
CARD17	0.535966	1.175258	0.704759	1.959865

OR10H5	0.544805	0.871105	0.557317	1.361565
PAX2	0.565829	1.139609	0.729504	1.780263
VAT1L	0.565908	1.142822	0.724497	1.802688
OLAH	0.571697	1.13731	0.72816	1.776359
HOXC6	0.576699	0.88023	0.562425	1.377614
GABRA1	0.581305	0.880447	0.559987	1.384295
COL25A1	0.581946	0.874364	0.542142	1.410168
ADAMTS19	0.593091	0.880131	0.551004	1.405853
SOX1	0.61024	0.888505	0.563965	1.399805
TWIST1	0.618079	0.889994	0.562886	1.407193
GABRA4	0.626454	1.119078	0.711389	1.760407
GLI2	0.63357	0.8949	0.566889	1.412703
SCN2A	0.641476	1.115689	0.703759	1.768733
PEG10	0.651816	0.900696	0.57186	1.418623
C1orf87	0.670404	0.907749	0.581282	1.417569
BRINP2	0.674309	0.904482	0.566309	1.444596
ADGRB3	0.676268	0.907726	0.576236	1.42991
PI15	0.681101	1.100132	0.697887	1.734222
HPSE2	0.688817	1.098445	0.693744	1.739231
ZNF385D	0.694015	1.094564	0.69782	1.716874
PRL	0.704502	0.911554	0.564855	1.471049
KIAA1644	0.71429	1.088517	0.691248	1.714101
CTNND2	0.720576	1.085876	0.691387	1.705451
KCNQ2	0.725185	1.083331	0.693352	1.692655
TGM3	0.735352	1.079971	0.691313	1.687133
SP9	0.736534	0.92625	0.592793	1.447282
RYR2	0.739369	0.923502	0.577859	1.47589
SEMA3D	0.746282	1.076615	0.688407	1.683744
SOX11	0.750577	0.929079	0.590299	1.462289
NGB	0.755416	1.073499	0.687071	1.677265
OVCH2	0.781154	0.935854	0.58625	1.49394
CYP27C1	0.787689	0.940613	0.602431	1.468639
AC113554.2	0.793477	1.062883	0.673287	1.677919
FOXQ1	0.80307	0.944427	0.602567	1.480238
PTGFR	0.804542	1.059472	0.670477	1.674153
KCNT2	0.819677	0.948463	0.60179	1.494843
PTCHD4	0.821739	0.949117	0.602593	1.494911
TRDN	0.829021	1.051191	0.668199	1.653704
C2CD4B	0.844883	0.955518	0.605732	1.507292
CNTNAP5	0.847056	0.955705	0.603087	1.514496
PNMA6F	0.851894	1.043548	0.667074	1.632489
MAGEC1	0.856754	0.958928	0.60816	1.512009
GPR37	0.858713	0.958485	0.600943	1.528752
GPR25	0.88596	0.966174	0.6037	1.546285

COL20A1	0.892209	1.031279	0.660551	1.610076
MAGEC3	0.893761	0.969362	0.613977	1.530453
S100A16	0.897497	0.970818	0.618658	1.52344
GABRG2	0.922063	0.977759	0.623078	1.534338
FOXF1	0.930927	1.020362	0.646857	1.609534
ADGRG7	0.937279	0.981855	0.622257	1.549262
RASL12	0.958893	0.9881	0.626746	1.557794
HOXC9	0.964002	0.989347	0.621389	1.575195
PRSS2	0.964367	0.989611	0.625876	1.564736
GJB2	0.967479	0.99071	0.632518	1.551743
KRT5	0.992121	0.997702	0.632027	1.574949
CDH18	0.995932	0.99884	0.639231	1.56075
KCNH6	0.998422	0.999549	0.639527	1.562247

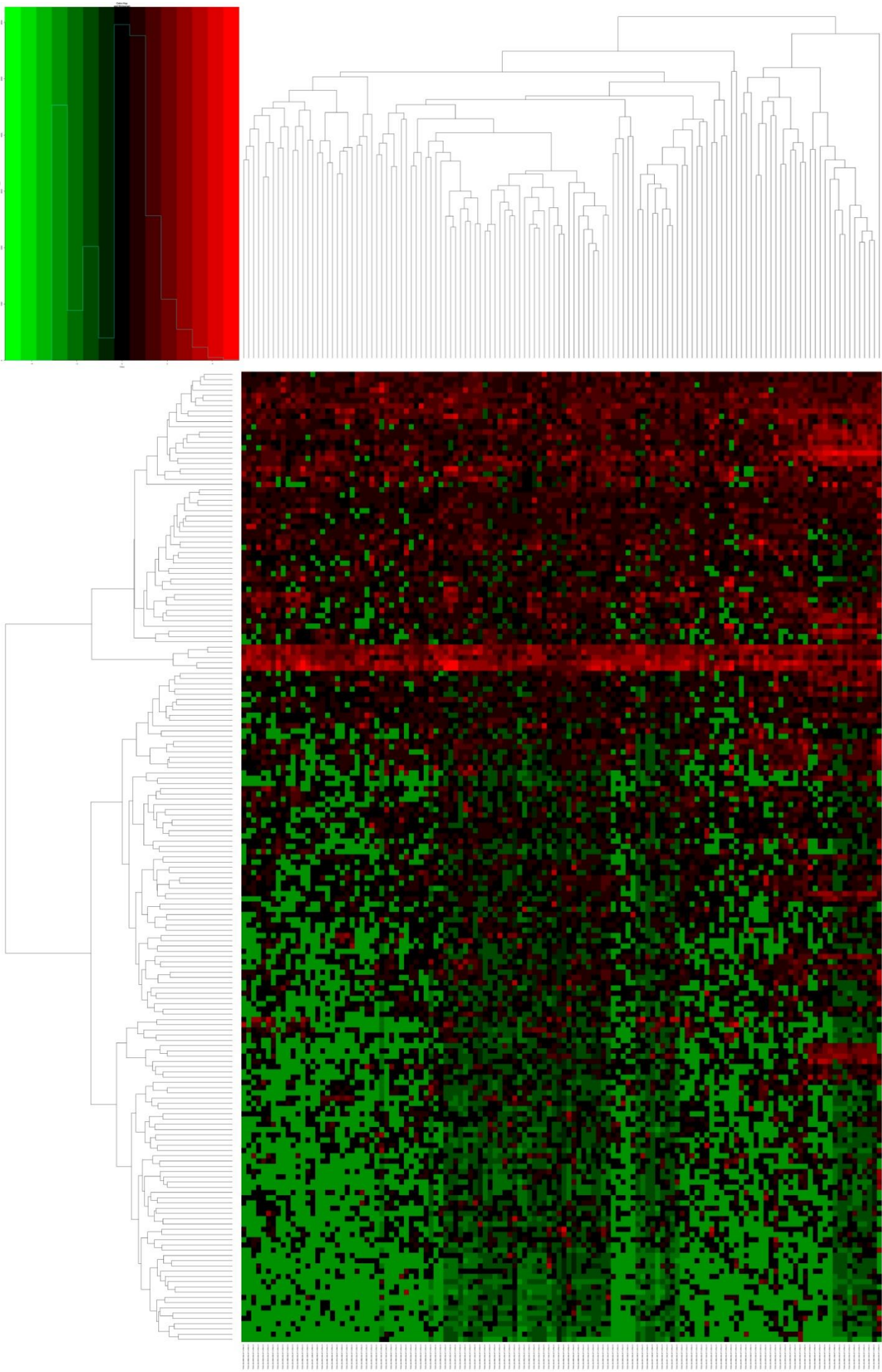


Figure S1. Heat map of DEGs between low- and high-risk score AML patients.