Supplementary Table 14: List of 135 top red genes input in GeneMANIA

	group 2 avg	group 2 sd	group 2 cv	group 3 avg	group 3 sd	group 3 cv	FC	logFC
KIR2DL1	0.00019698	0.00102356	5.19615242	0.04033766	0.12501806	3.09928845	204.775885	7.67790202
PDZK1IP1	0.0120123	0.03048899	2.53814717	0.20516608	0.34672501	1.68997236	17.0796668	4.09420792
MMRN1	0.00129724	0.00322589	2.48673939	0.01751809	0.02904393	1.65793958	13.5041587	3.75533186
TNFRSF13C	0.01177415	0.03468898	2.94619844	0.15619067	0.3184028	2.03855842	13.26556	3.72961368
RLN2	0.01266902	0.02469827	1.94950088	0.13661401	0.19561325	1.43186813	10.7833115	3.43072838
INSL3	0.0194798	0.08920262	4.57923783	0.18269693	0.33744795	1.84703681	9.37879032	3.22940186
NUGGC	0.04499276	0.05066229	1.12600974	0.38793592	0.39959135	1.03004473	8.62218456	3.10805344
FCRL5	0.00746028	0.01392186	1.86613128	0.06354694	0.1269395	1.9975708	8.51803669	3.09052095
CCR8	0.05110063	0.06744294	1.31980631	0.41492774	0.38787953	0.93481226	8.11981591	3.02144702
SYNGR3	0.03047795	0.03713027	1.21826671	0.21729968	0.25899474	1.19187815	7.12973366	2.83384818
GZMA	1.59157504	1.28944652	0.81017011	11.1507319	13.1751834	1.18155325	7.00609875	2.80861132
IGLL5	0.19034409	0.32844602	1.72553831	1.33032132	2.83167441	2.12856426	6.98903404	2.80509307
B3GAT1	0.02211549	0.04113053	1.8598067	0.15331529	0.14000173	0.91316227	6.93248453	2.79337249
NBL1	0.07160343	0.11469574	1.60181899	0.49466354	0.64854986	1.31109293	6.90837738	2.78834689
GPR174	0.18412317	0.17964951	0.97570293	1.26287521	1.06112107	0.84024222	6.85886101	2.77796902
GPR25	0.07518413	0.10728933	1.42702092	0.50525087	0.43144611	0.85392453	6.72017941	2.74849975
THEMIS	0.26184956	0.16378276	0.6254842	1.73566198	1.65597634	0.95408919	6.62847012	2.72867593
SLC14A1	0.0073932	0.01886136	2.55117712	0.04840051	0.06526873	1.34851326	6.54662634	2.71075164
JCHAIN	0.34766809	0.27038767	0.77771782	2.26160038	5.75075282	2.54278027	6.50505605	2.70156149
UGT8	0.00361752	0.00852439	2.35641668	0.02310336	0.03970047	1.7183852	6.38651513	2.67502893
POU2AF1	0.02140636	0.02321959	1.08470518	0.13624998	0.14889212	1.0927864	6.36492885	2.67014439
TRAT1	0.35525602	0.27276737	0.76780508	2.25167879	1.73956235	0.77256239	6.33818626	2.66407006
CCL5	6.28860396	5.10000515	0.81099163	39.8482565	44.7132863	1.1220889	6.33658228	2.66370491
GNLY	1.25147974	1.52840668	1.2212796	7.88663358	7.94289161	1.00713334	6.30184679	2.65577468
CD96	0.56301017	0.31039736	0.5513175	3.51169571	2.86461486	0.8157355	6.23735746	2.64093494
GZMB	1.44071956	1.12212935	0.7788673	8.95852288	11.9174787	1.33029506	6.21808932	2.63647134
SH2D2A	0.48524886	0.36750936	0.75736266	3.01587021	2.97763449	0.98732183	6.2151001	2.63577763
SLA2	0.48852211	0.29108354	0.59584517	3.02720869	3.04579467	1.00613965	6.19666673	2.63149238
FSD1	0.01601426	0.03739742	2.33525765	0.09922711	0.11499317	1.15888864	6.19617209	2.63137721
IL12RB2	0.09705867	0.06793307	0.69991756	0.60008216	0.59241632	0.98722535	6.18267446	2.62823105
AFAP1L2	0.01754869	0.02667657	1.52014585	0.10803521	0.1312316	1.21471133	6.15631175	2.62206629
VIPR1	0.02432363	0.03603023	1.48128544	0.14774459	0.16238692	1.09910574	6.07411883	2.60267513
RAB27B	0.02408278	0.02128931	0.88400546	0.14597002	0.16550382	1.13382063	6.06117717	2.59959801
IL32	3.62018982	2.42056331	0.66862884	21.8393594	19.9296256	0.91255541	6.03265588	2.59279329
NCR1	0.05403209	0.08834303	1.63501041	0.32575795	0.52001303	1.59631721	6.02897161	2.59191194
FASLG	0.23764372	0.17998526	0.75737438	1.42355367	1.33041698	0.93457451	5.99028536	2.58262473
IGFBP3	0.02510511	0.04034243	1.60694138	0.14862995	0.151472	1.01912168	5.92030737	2.56567208
IKZF3	0.44173267	0.24158121	0.54689459	2.60661892	2.13471487	0.81895932	5.90089689	2.56093425
F2R	0.24021975	0.12736107	0.53018568	1.41504235	1.26025275	0.89061133	5.89061626	2.55841857
PXYLP1	0.03291064	0.0363995	1.1060099	0.19222427	0.13141346	0.68364653	5.84079322	2.54616431
PRF1	0.77566948	0.53383674	0.68822707	4.51654215	5.17800792	1.14645403	5.82276634	2.54170473
ZNF831	0.08438874	0.06140996	0.72770327	0.48948402	0.32372437	0.6613584	5.80034793	2.53613944
TAL1	0.00644937	0.01174021	1.82036628	0.03728549	0.08876141	2.38058867	5.78126128	2.53138427
TBX21	0.17253784	0.13697584	0.7938887	0.99133374	0.76852976	0.77524827	5.74560198	2.52245805
BCL11B	0.16861851	0.09648407	0.57220331	0.96834417	0.76516753	0.79018138	5.74281056	2.52175697
TGFBR3	0.05271254	0.03250121	0.61657464	0.30169622	0.27794859	0.92128629	5.72342412	2.51687852
SH2D1A	0.1621508	0.12367225	0.76269989	0.91850198	0.83990364	0.91442769	5.66449247	2.5019467
DBH	0.01026128	0.01928324	1.87922384	0.05800655	0.06437279	1.10975038	5.65295381	2.49900491
TMIGD2	0.11435374	0.14521283	1.26985634	0.64328589	0.6416285	0.99742355	5.62540295	2.49195644
ATP1A3	0.04544567	0.04465002	0.98249229	0.25521634	0.18724886	0.73368679	5.61585561	2.48950584
NKG7	1.58680756	1.28456363	0.80952704	8.89509565	14.4594131	1.62554892	5.60565496	2.48688295
CD40LG	0.5825414	0.40721471	0.69903137	3.25870065	2.64685094	0.81224115	5.59393865	2.48386443
TC2N	0.27754756	0.1731116	0.62371867	1.55042306	1.05962994	0.68344568	5.58615268	2.48185501
KCNQ5	0.00315381	0.00456762	1.44828738	0.01730024	0.02118742	1.22468912	5.48551141	2.45562613
CXCR3	0.65944492	0.38110443	0.57791699	3.58074869	2.77191493	0.77411602	5.42994353	2.44093719
CDHR1	0.0124987	0.01802525	1.44217034	0.06781385	0.08818369	1.30037866	5.42567271	2.43980202
GRAP2	0.43113905	0.31029099	0.7197005	2.33914179	1.60805636	0.6874557	5.42549278	2.43975418
PPP1R16B	0.62383882	0.30935568	0.49589041	3.35582698	2.87486904	0.85667976	5.37931738	2.42742311
IL18RAP	0.2293542	0.15773314	0.68772727	1.23269585	1.11029751	0.90070678	5.37463824	2.42616765
ST8SIA1	0.01797936	0.01348514	0.75003469	0.09622619	0.08702098	0.90433781	5.35203631	2.4200879
ABCD2	0.03894318	0.03365154	0.86411896	0.20821499	0.17685115	0.849368	5.34663583	2.41863142
JAKMIP1	0.17138966	0.21435693	1.25069926	0.91583998	0.8532247	0.93163076	5.34361271	2.41781545
CD3E	2.36125441	1.45388634	0.61572626	12.5811892	8.6942895	0.69105467	5.32818028	2.4136429
IL2RB	1.175121	0.69336739	0.59003914	6.24524065	4.83170144	0.77366065	5.31455608	2.40994919
ITM2A	0.46707747	0.30977972	0.66322985	2.47528883	2.33337692	0.94266854	5.29952518	2.4058631
LCK	1.69059793	0.93399487	0.55246422	8.92982563	6.18071065	0.69214237	5.28205169	2.40109842
TSPAN5	0.09107504	0.06695601	0.73517409	0.47870287	0.38603451	0.80641778	5.25613658	2.39400277
PLXDC1	0.05833162	0.05206994	0.89265371	0.3061764	0.23726055	0.77491456	5.24889225	2.39201298

Supplemental material

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Thorax

GZMM	0.25287297	0.33780228	1.33585764	1.32604504	1.30462252	0.9838448	5.24391776	2.39064506
EOMES	0.17169982	0.1154152	0.67219173	0.89647194	1.1828329	1.31943104	5.22115844	2.38436994
NLRC3	0.35255783	0.16862711	0.47829632	1.83988821	1.30881973	0.71135829	5.21868486	2.38368629
EPHA4	0.02687659	0.03316182	1.23385526	0.14006755	0.14274876	1.01914225	5.21150786	2.38170085
LY9	0.39196658	0.20456869	0.52190341	2.03095888	1.62257604	0.79892117	5.18145931	2.37335848
CAMK2N1	0.02592453	0.03886362	1.49910622	0.13214145	0.14272034	1.08005734	5.09715944	2.34969348
SH2D1B	0.05160319	0.04554132	0.88252922	0.26221192	0.47639082	1.81681601	5.08131271	2.34520125
UBASH3A	0.34987843	0.27165859	0.77643707	1.77043002	1.4086806	0.79567144	5.06012904	2.33917418
ZNF683	0.75736665	1.13005618	1.492086	3.80707567	3.30945475	0.86929051	5.02672736	2.32961944
INPP4B	0.11243197	0.08673199	0.77141754	0.56469019	0.45137603	0.79933394	5.0225057	2.3284073
KLRC3	0.0749891	0.10691804	1.4257812	0.37637755	0.51426297	1.36634868	5.01909702	2.32742784
PTGDR	0.05409146	0.06594804	1.21919503	0.26983797	0.21224665	0.78657075	4.98854998	2.31862053
LZTS1	0.04807353	0.0486097	1.01115311	0.23783221	0.20319939	0.85438128	4.94725954	2.30662959
SPOCK2	1.32542707	0.73149534	0.55189407	6.54782896	3.86814992	0.59075305	4.94016539	2.30455934
ZAP70	0.75990685	0.52542708	0.69143616	3.73737617	2.51110242	0.67188913	4.91820301	2.29813129
CD8A	1.4592963	1.17404821	0.80453038	7.13849431	9.79134177	1.37162563	4.89173743	2.29034697
ITM2C	0.4736768	0.25131552	0.53056329	2.2892474	3.34110407	1.45947707	4.83293118	2.27289845
PLCXD2	0.0341641	0.03799593	1.11215952	0.16503658	0.12013534	0.72793162	4.8307022	2.27223292
ITK	1.0098732	0.51857676	0.5135068	4.86882	3.20192635	0.65763909	4.82121912	2.269398
IL31RA	0.0105281	0.03555224	3.3768919	0.0506839	0.05979556	1.17977432	4.814156	2.26728289
APOBEC3D	0.23356996	0.18780266	0.80405314	1.12318931	0.82136014	0.73127489	4.80879176	2.26567445
CD79A	0.15457058	0.1921099	1.242862	0.74018684	1.09118799	1.47420614	4.7886657	2.25962372
ETS1	1.51691856	0.67192429	0.44295344	7.220055	4.54809696	0.62992553	4.75968533	2.2508662
KIR2DL4	0.03668346	0.09459103	2.57857447	0.17353914	0.21171529	1.21998584	4.73071894	2.24205945
RORC	0.12125477	0.10814133	0.89185218	0.56227033	0.47124541	0.83811182	4.63709853	2.21322238
GNG2	0.69373204	0.27040548	0.38978376	3.20751354	2.21266124	0.68983691	4.62356266	2.20900494
NPDC1	0.09031202	0.0894995	0.99100329	0.41526988	0.48206219	1.16084073	4.59816865	2.20105938
TNFRSF25	0.66778993	0.51483209	0.77094917	3.0284016	1.77115553	0.5848483	4.5349615	2.1810903
DOCK9	0.14048824	0.07813332	0.5561556	0.63521503	0.47033861	0.74044	4.52148169	2.17679562
APBA2	0.05642016	0.07058087	1.25098663	0.25479413	0.24782617	0.9726526	4.51601193	2.1750493
ANO9	0.17690799	0.13102017	0.74061192	0.79866027	0.52170868	0.65322979	4.51455168	2.17458273
GPR171	0.82342663	0.47608588	0.57817644	3.71667646	3.26817247	0.8793266	4.51367047	2.17430109
LAG3	0.43290487	0.25425024	0.58731203	1.94890867	2.74678652	1.40939725	4.50193287	2.17054455
MS4A1	0.15021376	0.13216219	0.87982744	0.67601114	0.59879176	0.88577202	4.50032771	2.17003006
FRMPD3	0.01271124	0.01746973	1.37435301	0.05691599	0.06613143	1.16191314	4.47761012	2.16272892
CD247	1.03377952	0.58383996	0.56476255	4.62704188	3.41703434	0.7384922	4.47584922	2.16216163
DAPK2	0.16503712	0.10167745	0.61608835	0.73802006	0.66729998	0.90417593	4.47184288	2.1608695
DTX3	0.10698597	0.09421962	0.8806726	0.47573545	0.42844677	0.90059879	4.44670859	2.15273786
KLRD1	0.20663585	0.15618156	0.75582994	0.91662182	1.16592887	1.27198464	4.43592829	2.14923604
RGS9	0.12021737	0.10610308	0.88259357	0.53265303	0.39591383	0.74328653	4.43074919	2.14755066
STAT4	0.48318653	0.26097751	0.54011752	2.13665754	1.51803974	0.71047405	4.42201385	2.14470354
VSIG1	0.01391095	0.0136939	0.98439718	0.06103802	0.05759834	0.94364696	4.38776714	2.13348696
RASGRP1	0.60750393	0.25248517	0.41561076	2.6438124	1.69685668	0.6418219	4.35192644	2.12165417
BTBD11	0.04106285	0.03153554	0.76798222	0.17701067	0.1253447	0.70811948	4.31072588	2.10793082
TRAF3IP3	1.24139607	0.72006131	0.58004156	5.35104108	3.07342127	0.5743595	4.31050266	2.10785612
PYHIN1	0.3313994	0.23330214	0.70399083	1.42356471	1.24353621	0.87353684	4.29561648	2.10286519
BTLA	0.0887307	0.07251019	0.81719386	0.38100154	0.31996848	0.83980889	4.29390874	2.10229153
TNFRSF13B	0.02105781	0.05874161	2.78954058	0.09030562	0.13051875	1.44530039	4.28846266	2.10046056
KLRK1	0.87173129	0.80820027	0.92712087	3.72089858	3.61855318	0.97249444	4.26840088	2.09369568
GCNT4	0.01281027	0.01657013	1.29350404	0.05440817	0.06931804	1.27403738	4.24723118	2.08652264
SYNE2	0.72455889	0.48328222	0.66700198	3.07680788	1.9819903	0.64417097	4.24645658	2.0862595
P2RY10	0.29538967	0.18723001	0.63384075	1.25139983	0.84636577	0.67633521	4.23643741	2.08285155
GPR18	0.13048024	0.1158386	0.88778651	0.55141048	0.57225857	1.03780866	4.22600751	2.07929533
ABCB1	0.05029328	0.04283782	0.85176027	0.21141156	0.16540727	0.78239464	4.20357471	2.07161671
ITPRIPL1	0.18207195	0.21569862	1.18468889	0.76482506	0.65093957	0.85109602	4.20067481	2.07062111
PDCD1	0.15741346	0.13444369	0.85408005	0.65899779	0.68717062	1.04275102	4.18641331	2.06571475
LEF1	0.25584001	0.18374759	0.71821288	1.06651153	0.79700433	0.74730024	4.16866592	2.05958576
MZB1	0.10773059	0.15479974	1.4369154	0.44504572	0.9083906	2.04111746	4.1310991	2.04652567
SIT1	0.57899719	0.30061469	0.51919887	2.38977258	2.03793617	0.8527741	4.12743383	2.04524509
SLC38A1	0.49947222	0.22326894	0.44700972	2.05472077	1.25864227	0.61256122	4.11378387	2.040466
WNT10B	0.0344504	0.04934519	1.43235448	0.14115638	0.13265328	0.93976112	4.09737966	2.03470158
IFITM1	7.22145444	4.40675271	0.61023063	29.4367513	26.4899932	0.89989527	4.07629121	2.02725712
KLRB1	1.41598993	1.18518225	0.83699907	5.77197548	5.36703836	0.92984428	4.07628287	2.02725417
P2RY8	0.43866363	0.25880378	0.58998231	1.78027054	1.24202792	0.69766245	4.05839559	2.0209095
PTPRCAP	5.41662037	2.85905598	0.52783023	21.975985	18.3436798	0.8347148	4.0571396	2.02046294
CD226	0.37003045	0.25081613	0.67782565	1.49931769	1.15000122	0.76701638	4.05187649	2.0185902
ATP8B2	0.60596485	0.27332635	0.45105974	2.44166588	1.31700613	0.53938835	4.02938531	2.01055977