

Table 13. The top-100 differentially expressed genes in T cell ALL vs. the NBM and purified hematopoietic cells

Accession no.	Gene name	Gene symbol	Entrez gene	Reporter ID	Score*	P	Sign [†]
T78679	Thymus high-mobility group box protein TOX	<i>TOX</i>	9760	24271	2.824665	0.0002	+
BX108481	Thymus high-mobility group box protein TOX	<i>TOX</i>	9760	758298	2.069278	0.0002	+
AA281064	Multiple cluster hits:264887 & 549034	<i>LETM2 & FGFR1</i>	137994 & 2260	711857	1.987403	0.0002	+
N28443	Chromosome 5 open reading frame 18	<i>C5orf18</i>	7905	263727	1.913595	0.0002	-
N93505	Transmembrane 4 superfamily member 2	<i>TM4SF2</i>	7102	307471	1.843258	0.0002	+
AI183964	Leprecan-like 2	<i>LEPREL2</i>	10536	1734754	1.835113	0.0002	-
H99944	Chromosome 5 open reading frame 18	<i>C5orf18</i>	7905	263267	1.830875	0.0002	-
AI338791	SH2 domain protein 1A, Duncan's disease (lymphoproliferative syndrome)	<i>SH2D1A</i>	4068	1951711	1.791226	0.0002	-
H94627	Upstream of NRAS	<i>UNR</i>	7812	256284	1.758371	0.0002	-
AA983573	Elongation factor Tu GTP binding domain containing 1	<i>EFTUD1</i>	79631	1559230	1.755958	0.0002	+
AA001749	Microtubule-associated protein, RP/EB family, member 1	<i>MAPRE1</i>	22919	428223	1.704101	0.0002	+
BX097169	P10-binding protein	<i>Cep70</i>	80321	256680	1.641818	0.0002	+
AA775899	FXVD domain containing ion transport regulator 2	<i>FXVD2</i>	486	453641	1.630669	0.0002	+
AA451754	Ataxin 10	<i>ATXN10</i>	25814	788714	1.62048	0.0002	+
AA625567	Hypothetical protein DKFZp779O175	<i>DKFZp779O175</i>	374899	745283	1.613584	0.0002	+
AI190537	Zinc finger, MYND domain containing 10	<i>ZMYND10</i>	51364	1733262	1.588394	0.0002	+
BX115028	ATP-binding cassette, subB family B (MDR/TAP), member 1	<i>ABCB1</i>	5243	502721	1.584404	0.0002	-
AA485621	Nuclear ubiquitous casein kinase and cyclin-dependent kinase substrate	<i>NUCKS</i>	64710	811067	1.572212	0.0002	+
T63980	Clone FLB3436 PRO0868 mRNA, complete cds	<i>0</i>	0	79761	1.558033	0.0002	+
N66008	Tumor suppressor candidate 3	<i>TUSC3</i>	7991	293859	1.535257	0.0002	+
W15318	Early B cell factor 3	<i>DKFZp667B0210</i>	253738	322641	1.53043	0.0002	-
CR744529	Multiple cluster hits:82919 & 546346	<i>CUL2 & KIAA1018</i>	8453 & 22909	502496	1.529693	0.0002	+
AA456008	ALL1-fused gene from chromosome 1q	<i>AF1Q</i>	10962	812105	1.50708	0.0002	+
N62195	3-hydroxy-3-methylglutaryl-Coenzyme A synthase 1 (soluble)	<i>HMGCS1</i>	3157	290111	1.491484	0.0002	+
AA630449	Niemann-Pick disease, type C2	<i>NPC2</i>	10577	854644	1.478618	0.0002	-
AA447978	Aldehyde dehydrogenase 1 family, member A2	<i>ALDH1A2</i>	8854	782730	1.477604	0.0002	+
AW005865	Brain-specific angiogenesis inhibitor 2	<i>BAI2</i>	576	2566064	1.477442	0.0002	+
AA682402	Major histocompatibility complex, class II, DR beta 4	<i>HLA-DRB5</i>	3127	461769	1.469602	0.0002	-
W60100	Serine (or cysteine) proteinase inhibitor, clade B (ovalbumin), member 8	<i>SERPINB8</i>	5271	341978	1.467317	0.0002	-
AA600186	Hypothetical protein DKFZp762N1910	<i>DKFZp762N1910</i>	221092	950361	1.466649	0.0002	+
AA676666	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily e, member 1	<i>SMARCE1</i>	6605	896972	1.456007	0.0002	+
BX094146	Small EDRK-rich factor 2	<i>SERF2</i>	10169	795427	1.45316	0.0002	+
N89676	Osteoglycin (osteoinductive factor, mimecan)	<i>OGN</i>	4969	307053	1.45191	0.0002	+
BX112910	PALM2-AKAP2 protein	<i>PALM2-AKAP2</i>	445815	282108	1.448482	0.0002	+
AA043117	Chromosome 9 open reading frame 9	<i>C9orf9</i>	11092	486717	1.447629	0.0002	+
AA488497	Transcription factor 12 (HTF4, helix-loop-helix transcription factors 4)	<i>TCF12</i>	6938	843159	1.442182	0.0002	+
AA047338	Proteasome (prosome, macropain) subunit, alpha type, 6	<i>PSMA6</i>	5687	509495	1.422169	0.0002	+
H19003	TBP-interacting protein	<i>TIP120A</i>	55832	50905	1.407544	0.0002	+
W96149	KIAA1166	<i>KIAA1166</i>	55906	358549	1.397866	0.0002	+
AA150254	Placenta-specific 8	<i>PLAC8</i>	51316	491644	1.387251	0.0002	-
BX100923	Cadherin 4, type 1, R-cadherin (retinal)	<i>CDH4</i>	1002	32777	1.384635	0.0002	+
AA634006	Actin, alpha 2, smooth muscle, aorta	<i>ACTA2</i>	59	868304	1.375127	0.0002	-
BX282852	RAP1, GTP-GDP dissociation stimulator 1	<i>RAP1GDS1</i>	5910	120128	1.367818	0.0002	+
AA668821	Chitinase 3-like 2	<i>CHI3L2</i>	1117	854338	1.364322	0.0002	+
AA699652	RALBP1 associated Eps domain containing 2	<i>REPS2</i>	9185	436455	1.353389	0.0002	+

AA425723	DKFZP564J0863 protein	<i>DKFZP564J0863</i>	25923	773375	1.351748	0.0002	+
AA485773	G-rich RNA sequence binding factor 1	<i>GRSF1</i>	2926	840384	1.35138	0.0002	+
N66197	Heterogeneous nuclear ribonucleoprotein A3	<i>HNRPA3</i>	220988	278630	1.350523	0.0002	+
AA448127	G kinase anchoring protein 1	<i>GKAP1</i>	80318	782721	1.35022	0.0002	+
AA664069	Laminin, gamma 1 (formerly LAMB2)	<i>LAMC1</i>	3915	855805	1.348414	0.0002	-
AW028997	Chaperonin containing TCP1, subunit 8 (theta)	<i>CCT8</i>	10694	2542182	1.34463	0.0002	+
AA169699	Hypothetical protein FLJ11171	<i>FLJ11171</i>	55783	609910	1.33974	0.0002	-
AA782380	Hypothetical protein LOC255189	<i>LOC255189</i>	255189	857442	1.33621	0.0002	-
W73801	Multiple cluster hits:147989 & 536516	<i>CACNG1 & 0</i>	786 & 0	344091	1.335653	0.0002	+
AA481250	Chitinase 3-like 2	<i>CHI3L2</i>	1117	815214	1.335585	0.0002	+
AA630100	Hypothetical protein MGC17299	<i>MGC17299</i>	128218	854691	1.333082	0.0002	-
AA495935	Microsomal glutathione S-transferase 1	<i>MGST1</i>	4257	768443	1.332625	0.0002	-
R56139	Selenophosphate synthetase 1	<i>SEPHS1</i>	22929	41295	1.32878	0.0002	+
AA991864	NEDD8-conjugating enzyme	<i>NCE2</i>	140739	1610453	1.32818	0.0002	-
T63800	Secretoglobin, family 1A, member 1 (uterglobin)	<i>SCGB1A1</i>	7356	81336	1.327902	0.0002	-
AI936359	Family with sequence similarity 50, member B	<i>FAM50B</i>	26240	2461731	1.326392	0.0002	-
AA887201	Chromosome 13 open reading frame 1	<i>C13orf1</i>	57213	1501998	1.325416	0.0002	-
AA937895	CD99 antigen	<i>CD99</i>	4267	1435862	1.323486	0.0002	+
BX092549	Topoisomerase (DNA) II binding protein 1	<i>TOPBP1</i>	11073	200136	1.322906	0.0002	+
AA431505	Solute carrier family 35, member D2	<i>SLC35D2</i>	11046	782140	1.319582	0.0002	-
AA486151	Neuron navigator 1	<i>NAV1</i>	89796	840777	1.319128	0.0002	-
BX112001	Similar to transcription factor BTF3	<i>MGC23908</i>	91408	824739	1.317554	0.0002	+
AA490700	Myosin, heavy polypeptide 10, non-muscle	<i>MYH10</i>	4628	823886	1.315207	0.0002	+
BX105075	Cryptochrome 1 (photolyase-like)	<i>CRY1</i>	1407	263087	1.315077	0.0002	+
N74244	Polybromo 1	<i>PBI</i>	55193	296883	1.312968	0.0002	+
T55975	PTK2 protein tyrosine kinase 2	<i>PTK2</i>	5747	73222	1.311684	0.0002	+
AA985421	Interferon induced transmembrane protein 2 (1-8D)	<i>IFITM2</i>	10581	1592837	1.308958	0.0002	-
AA922700	Microtubule-associated protein, RP/EB family, member 1	<i>MAPRE1</i>	22919	1474323	1.305172	0.0002	+
AA070388	TBP-interacting protein	<i>TIP120A</i>	55832	531031	1.304351	0.0002	+
AA482326	Leucine zipper, down-regulated in cancer 1-like	<i>LDOC1L</i>	84247	840884	1.301825	0.0002	+
AA121805	RAB3C, member RAS oncogene family	<i>RAB3C</i>	115827	565939	1.298994	0.0002	-
AA609284	EPH receptor B6	<i>EPHB6</i>	2051	1031552	1.298559	0.0002	+
AA041396	Tumor necrosis factor (ligand) superfamily, member 12	<i>TNFSF13</i>	8741	376475	1.297292	0.0002	-
AA166917	Plexin domain containing 2	<i>PLXDC2</i>	84898	593815	1.296824	0.0002	-
AA670391	HCCA2 protein	<i>HCCA2</i>	81532	878764	1.291996	0.0002	+
BX094538	PRO1310	<i>0</i>	0	345152	1.288941	0.0002	-
AA432068	Transmembrane protein vezatin	<i>VEZATIN</i>	55591	784113	1.28694	0.0002	+
AI217523	Transportin 2 (importin 3, karyopherin beta 2b)	<i>TNPO2</i>	30000	1845273	1.284486	0.0002	+
AA779191	Heterogeneous nuclear ribonucleoprotein R	<i>HNRPR</i>	10236	453790	1.283208	0.0002	+
AI609735	Solute carrier family 2, (facilitated glucose transporter) member 8	<i>SLC2A8</i>	29988	2105806	1.281897	0.0002	-
H73731	Multiple cluster hits:540343 & 549117	<i>0 & AOF2</i>	0 & 23028	214731	1.278331	0.0002	+
AA406456	Cell division cycle associated 7	<i>CDCA7</i>	83879	753198	1.275668	0.0002	+
R68376	Hypothetical protein FLJ11712	<i>FLJ11712</i>	79621	137890	1.274068	0.0002	+
AA633658	Amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease)	<i>APP</i>	351	856575	1.273546	0.0002	-
BX117755	Multiple cluster hits:511722 & 549143	<i>0 & 0</i>	0 & 0	342256	1.271015	0.0002	+
AA452753	Ribosomal protein S6 kinase, 90kDa, polypeptide 1	<i>RPS6KA1</i>	6195	788511	1.270343	0.0002	-
BX105452	Chromosome 9 open reading frame 126	<i>C9orf126</i>	286205	357420	1.268563	0.0002	+
AA479998	Protein arginine N-methyltransferase 7	<i>PRMT7</i>	54496	753984	1.268508	0.0002	+
AA620867	Forkhead box P1	<i>FOXP1</i>	27086	1049346	1.267193	0.0002	-
H17385	Haloacid dehalogenase-like hydrolase domain containing 2	<i>HDHD2</i>	84064	50660	1.266916	0.0002	+

AA292410	Multiple cluster hits:436657 & 540696	<i>CLU & SLC6A8</i>	1191 & 6535	725877	1.264882	0.0002	-
AA629901	Hypothetical protein MGC33510	<i>MGC33510</i>	254778	884658	1.264599	0.0002	-
AI732182	N-acetylated alpha-linked acidic dipeptidase 2	<i>NAALADL2</i>	254827	884510	1.263516	0.0002	-
AA451811	Rho GTPase activating protein 21	<i>ARHGAP21</i>	57584	795277	1.261859	0.0002	+
N91921	T cell receptor beta chain V3-D-J2.7-C2 region	<i>0</i>	0	306841	1.261851	0.0002	+

*The plus (+) sign indicates relative up-regulation in T cell ALL, the minus (-) sign indicates up-regulation in normal cells.

†Value from discriminatory analysis, with a high value indicating a high correlation with the classes.