

Table 22. The Top-100 differentially expressed genes in MLL as compared to AML

Accession no.	Gene name	Gene symbol	Entrez gene	Reporter ID	Score*	P	Sign [†]
W48726	Pre-B cell leukemia transcription factor 3	<i>PBX3</i>	5090	325014	1.603556	0.0002	+
AA460463	Cytokine-like protein C17	<i>C17</i>	54360	796569	1.60094	0.0002	-
AA778198	Pre-B cell leukemia transcription factor 3	<i>PBX3</i>	5090	448386	1.561468	0.0002	+
AA055440	Sprouty homolog 1, antagonist of FGF signaling (Drosophila)	<i>SPRY1</i>	10252	377468	1.542028	0.0002	-
W86201	Transmembrane 4 superfamily member 13	<i>TM4SF13</i>	27075	416374	1.535125	0.0002	-
H47496	Multiple cluster hits:15792 & 496755	<i>0 & C14orf128</i>	0 & 84837	193151	1.517486	0.0002	-
AI681015	Suppressor of cytokine signaling 6	<i>SOCS6</i>	9306	2272331	1.512138	0.0002	-
AA411757	Carcinoembryonic antigen-related cell adhesion molecule 1 (biliary glycoprotein)	<i>CEACAM1</i>	634	753301	1.482417	0.0002	-
AW075557	Bromodomain adjacent to zinc finger domain, 2A	<i>BAZ2A</i>	11176	2577057	1.471777	0.0002	+
AA001444	Meis1, myeloid ecotropic viral integration site 1 homolog (mouse)	<i>MEIS1</i>	4211	361943	1.442485	0.0002	+
AI298194	Zinc finger protein 318	<i>ZNF318</i>	24149	1896746	1.425115	0.0002	+
T71879	Complement component 2	<i>C2</i>	717	85497	1.403062	0.0002	+
BX112951	Meis1, myeloid ecotropic viral integration site 1 homolog (mouse)	<i>MEIS1</i>	4211	307506	1.383763	0.0002	+
AA609759	Multiple cluster hits:51120 & 172516	<i>CAMP & 0</i>	820 & 0	1031940	1.383739	0.0002	-
AA436142	Sparc/osteonectin, cwcv and kazal-like domains proteoglycan (testican)	<i>SPOCK</i>	6695	754358	1.374911	0.0002	+
AA460666	NEDD9 interacting protein with calponin homology and LIM domains	<i>NICAL</i>	64780	796240	1.374325	0.0002	+
T91261	Mannosidase, alpha, class 1A, member 1	<i>MAN1A1</i>	4121	112629	1.351699	0.0004	-
N74131	Trefoil factor 3 (intestinal)	<i>TFF3</i>	7033	298417	1.350444	0.0002	-
BX094091	Multiple cluster hits:9887 & 378808	<i>0 & eIF2A</i>	0 & 83939	41132	1.340339	0.0004	+
BX088745	B/K protein	<i>LOC51760</i>	51760	1239845	1.333499	0.0002	+
AA885342	Hypothetical protein FLJ10379	<i>FLJ10379</i>	55133	1461767	1.329879	0.0004	-
AA442095	Neural precursor cell expressed, developmentally down-regulated 4	<i>NEDD4</i>	4734	774751	1.324224	0.0006	-
N47967	Rho GTPase activating protein 5	<i>ARHGAP5</i>	394	281467	1.279156	0.0002	-
BX116201	Syntaxin binding protein 5 (tomosyn)	<i>STXBP5</i>	134957	134537	1.279135	0.0004	-
AA953229	Homeo box A10	<i>HOXA10</i>	3206	1592006	1.279019	0.0002	+
BX102233	Breast cancer 1, early onset	<i>BRCA1</i>	672	241474	1.277365	0.0002	-
AA055194	DEAH (Asp-Glu-Ala-His) box polypeptide 29	<i>DHX29</i>	54505	377193	1.265058	0.0002	-
AW057757	Palladin	<i>KIAA0992</i>	23022	2542582	1.261812	0.0002	+
H20759	Fasciculation and elongation protein zeta 1 (zygin I)	<i>FEZ1</i>	9638	51543	1.25626	0.0002	+
AA883675	ATPase, Ca++ transporting, type 2C, member 1	<i>ATP2C1</i>	27032	1466621	1.250476	0.0004	-
BX096034	Asialoglycoprotein receptor 1	<i>ASGR1</i>	432	204541	1.247225	0.0004	-
AI949576	Annexin A3	<i>ANXA3</i>	306	2469213	1.246393	0.0002	-
AI393843	Potassium voltage-gated channel, subfamily H (eag-related), member 2	<i>KCNH2</i>	3757	2113077	1.243364	0.0004	-
N47388	Stonin 2	<i>STN2</i>	85439	280602	1.238794	0.0004	-
AA022910	Hypothetical protein LOC339005	<i>LOC339005</i>	339005	364547	1.231266	0.0002	+
R39069	Phosphatidylinositol-4-phosphate 5-kinase, type I, beta	<i>PIP5K1B</i>	8395	24918	1.192449	0.0002	-
BX106607	CDNA: FLJ22133 fis, clone HEP20529	<i>0</i>	0	385031	1.187667	0.0004	+
BX102630	Mannosidase, alpha, class 1A, member 1	<i>MAN1A1</i>	4121	823688	1.182787	0.0002	-
AI985214	Tissue factor pathway inhibitor (lipoprotein-associated coagulation inhibitor)	<i>TFPI</i>	7035	2495781	1.177553	0.0002	-
CR740426	Testis expressed gene 9	<i>TEX9</i>	374618	704261	1.177399	0.0002	-
AA012892	Cysteine-rich, angiogenic inducer, 61	<i>CYR61</i>	3491	360254	1.17596	0.0002	-
AA629926	Zinc finger protein 544	<i>ZNF544</i>	27300	884683	1.171308	0.0004	-
AA863469	Lipoma HMGIC fusion partner-like 2	<i>LHFPL2</i>	10184	1469377	1.166668	0.0004	-
BX098640	Kruppel-like factor 1 (erythroid)	<i>KLF1</i>	10661	211216	1.158554	0.0004	-
W47077	Latexin	<i>LXN</i>	56925	325070	1.144956	0.0008	-
AA775576	EMI domain containing 1	<i>EMID1</i>	129080	378420	1.144665	0.0006	-
AA453789	Multiple cluster hits:90572 & 460468	<i>PTK7 & XPO6</i>	5754 & 23214	813742	1.124768	0.0004	-

AA464421	Multiple cluster hits:371617 & 462923	<i>RNF110 & LOC284106</i>	7703 & 284106	809916	1.123356	0.0004	+
AA633658	Amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease)	<i>APP</i>	351	856575	1.123121	0.0002	-
AW074796	Catechol-O-methyltransferase domain containing 1	<i>COMTD1</i>	118881	2572170	1.117711	0.0006	+
BX103040	A kinase (PRKA) anchor protein (gravin) 12	<i>AKAP12</i>	9590	784772	1.117277	0.0002	-
AA427666	Potassium voltage-gated channel, subfamily H (eag-related), member 2	<i>KCNH2</i>	3757	770012	1.113482	0.0002	-
N24824	V-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog	<i>KIT</i>	3815	269806	1.112017	0.0004	-
AA453673	Arginase, liver	<i>ARG1</i>	383	813635	1.111063	0.0002	-
AA620859	Sarcospan (Kras oncogene-associated gene)	<i>SSPN</i>	8082	1049330	1.108099	0.0006	-
AA401578	Chromosome 16 open reading frame 5	<i>C16orf5</i>	29965	742562	1.103543	0.0004	-
AA016225	Chromosome 9 open reading frame 123	<i>C9orf123</i>	90871	359269	1.102292	0.0004	+
AA887320	SH3 multiple domains 1	<i>SH3MD1</i>	9644	1500815	1.094942	0.0002	-
H90152	Growth hormone regulated TBC protein 1	<i>GRTP1</i>	79774	240896	1.094496	0.0004	-
N49899	Solute carrier family 18 (vesicular monoamine), member 2	<i>SLC18A2</i>	6571	243653	1.079465	0.0002	-
AA489040	Ecotropic viral integration site 2A	<i>EV12A</i>	2123	824933	1.079015	0.0004	-
AA978354	O-6-methylguanine-DNA methyltransferase	<i>MGMT</i>	4255	1588791	1.076021	0.0004	-
N27159	Inhibin, beta A (activin A, activin AB alpha polypeptide)	<i>INHBA</i>	3624	269815	1.075447	0.0006	-
AA044031	Hypothetical protein DKFZp762C1112	<i>DKFZp762C1112</i>	169200	486626	1.072009	0.0004	-
AA421504	Mannosyl (beta-1,4-)-glycoprotein beta-1,4-N-acetylglucosaminyltransferase	<i>MGAT3</i>	4248	731060	1.066855	0.0002	-
AA960970	Transcribed locus	<i>0</i>	0	1564175	1.064517	0.0004	-
A1708846	WD repeat domain 9	<i>WDR9</i>	54014	2318439	1.062286	0.0004	-
A1799757	Immunoglobulin heavy variable 1/OR15-1	<i>0</i>	388077	2320870	1.061124	0.0002	-
AA155640	Transcobalamin I (vitamin B12 binding protein, R binder family)	<i>TCN1</i>	6947	592243	1.060907	0.0008	-
N52651	Growth hormone regulated TBC protein 1	<i>GRTP1</i>	79774	245039	1.059999	0.0002	-
A1076601	MRNA full length insert cDNA clone EUOIMAGE 31619	<i>0</i>	0	1676920	1.058532	0.0002	-
N30372	Interferon regulatory factor 5	<i>IRF5</i>	3663	260035	1.057563	0.0002	-
W30988	Multiple cluster hits:9613 & 549764	<i>ANGPTLA & 0</i>	51129 & 0	310356	1.057379	0.0004	-
A1360196	Huntingtin interacting protein 2	<i>HIP2</i>	3093	2018680	1.0549	0.0004	+
R38669	Rho-related BTB domain containing 2	<i>RHOBTB2</i>	23221	23333	1.0502	0.0004	+
N46335	Suppressor of cytokine signaling 6	<i>SOCS6</i>	9306	279232	1.049307	0.0008	-
H84154	Cyclin D2	<i>CCND2</i>	894	249688	1.048447	0.0004	-
W31815	Multiple cluster hits:432390 & 520245	<i>DNAH11 & RAM2</i>	8701 & 55536	320455	1.043335	0.0004	-
AA459589	Tumor protein p53 inducible nuclear protein 1	<i>TP53INP1</i>	94241	814528	1.039437	0.0002	-
AA489421	Stomatin	<i>STOM</i>	2040	843374	1.03717	0.0002	-
AA432256	Thyroid hormone receptor interactor 12	<i>TRIP12</i>	9320	782314	1.033773	0.0002	-
H90949	ADP-ribosylation factor guanine nucleotide-exchange factor 1(brefeldin A-inhibited)	<i>ARFGEF1</i>	10565	240680	1.03305	0.0008	-
AA293700	FLJ44216 protein	<i>FLJ44216</i>	375484	725618	1.032554	0.0008	+
BX112804	Brevican	<i>BCAN</i>	63827	32687	1.03133	0.0004	+
AA677706	Lactotransferrin	<i>LTF</i>	4057	460487	1.029736	0.0002	-
H54505	Non-metastatic cells 4, protein expressed in	<i>NME4</i>	4833	203003	1.028054	0.0008	-
T68845	Dexamethasone-induced transcript	<i>DEXI</i>	28955	82173	1.023797	0.0002	+
AA424971	Multiple cluster hits:281434 & 412293	<i>SIAT7B & NCOA1</i>	10610 & 8648	768469	1.02193	0.0008	-
AA447599	Cytoplasmic linker associated protein 2	<i>CLASP2</i>	23122	782700	1.021147	0.0002	+
AA425184	Sperm associated antigen 16	<i>SPAG16</i>	79582	772944	1.020768	0.0008	-
AA916325	Aldo-keto reductase family 1, member C3 (3-alpha hydroxysteroid dehydrogenase, type II)	<i>AKR1C3</i>	8644	1473304	1.015242	0.0008	-
AA489276	Transcription factor RAM2	<i>RAM2</i>	55536	842896	1.014345	0.0002	-
T62715	Aldo-keto reductase family 7, member A2 (aflatoxin aldehyde reductase)	<i>AKR7A2</i>	8574	79592	1.014097	0.0008	+
AW070907	Sphingomyelin phosphodiesterase, acid-like 3B	<i>SMPDL3B</i>	27293	2568386	1.012995	0.0002	-
A1745626	Metallothionein 1G	<i>MT1G</i>	4495	2317017	1.010894	0.0008	-
N64405	Golgi phosphoprotein 3-like	<i>GOLPH3L</i>	55204	290261	1.010811	0.0002	-

H29713	Chromosome 6 open reading frame 33	<i>C6orf33</i>	85315	52865	1.009647	0.0004	+
AA456265	Coagulation factor II (thrombin) receptor-like 1	<i>F2RL1</i>	2150	811899	1.006964	0.001	-
AA490494	Tumor necrosis factor receptor superfamily, member 21	<i>TNFRSF21</i>	27242	823902	1.005138	0.0004	-
CR738780	Multiple cluster hits:352839 & 444409	<i>MRPS15 & MEF2C</i>	64960 & 4208	825232	0.999579	0.001	+

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

†The plus (+) sign indicates relative up-regulation in *MLL*-positive AMLs, the minus (-) sign indicates up-regulation in AML.