

Table S4. GSEA RankOrder MLO-Y4_181Genes. MACph vs FB

NAME	PROBE	GENE SYMBOL	GENE_TITLE	RANK IN GENE LIST	RANK METRIC SCORE	RES	CORE ENRICHMENT
row_0	161969_f_at	Capg	capping protein (actin filament), gelsolin-like	58	4.99990797	0.003763296	Yes
row_1	99586_at	Cst3	cystatin C	119	4.999763966	0.007364023	Yes
row_2	101487_f_at	Ly6e	lymphocyte antigen 6 complex, locus E	126	4.999756813	0.015347499	Yes
row_3	98067_at	Cdkn1a	cyclin-dependent kinase inhibitor 1A (P21)	142	4.999710083	0.022600435	Yes
row_4	93810_at	Ctsd	cathepsin D	151	4.999692917	0.030421479	Yes
row_5	97519_at	Spp1	secreted phosphoprotein 1	186	4.999632359	0.0361322	Yes
row_6	101123_at	Itn2b	integral membrane protein 2B	207	4.99957943	0.042979106	Yes
row_7	160106_at	Capg	capping protein (actin filament), gelsolin-like	227	4.999545097	0.049907114	Yes
row_8	102712_at	Saa3	serum amyloid A 3	253	4.999474049	0.05634803	Yes
row_9	93088_at	B2m	beta-2 microglobulin	272	4.999414444	0.06335698	Yes
row_10	95974_at	Gbp1	guanylate nucleotide binding protein 1	321	4.999304771	0.06793088	Yes
row_11	97540_f_at	H2-D1	histocompatibility 2, D region locus 1	323	4.999300957	0.07631939	Yes
row_12	93120_f_at	H2-D1	histocompatibility 2, D region locus 1	333	4.999289036	0.08405858	Yes
row_13	102218_at	Il6	interleukin 6	442	4.99892664	0.08376211	Yes
row_14	93573_at	Mt1	metallothionein 1	459	4.99886322	0.090932444	Yes
row_15	96075_at	Wdr1	WD repeat domain 1	603	4.998363972	0.08779433	Yes
row_16	99590_at	Rps17	ribosomal protein S17	605	4.998360157	0.09618126	Yes
row_17	95721_at	Mapkapk2	MAP kinase-activated protein kinase 2	693	4.997970104	0.09758756	Yes
row_18	101510_at	Psme1	proteasome (prosome, macropain) 28 subunit, alpha	720	4.997829914	0.10394453	Yes
row_19	100488_at	Gba	glucosidase, beta, acid	748	4.99771452	0.11022014	Yes
row_20	97248_at	Dbi	diazepam binding inhibitor	809	4.997442245	0.11381693	Yes
row_21	94966_at	G6pdx	glucose-6-phosphate dehydrogenase X-linked	836	4.997331619	0.12017306	Yes
row_22	100600_at	Cd24a	CD24a antigen	868	4.997171879	0.1261231	Yes
row_23	93586_at	Syngn2	synaptogyrin 2	907	4.99698019	0.13150467	Yes
row_24	102322_at	Ugdh	UDP-glucose dehydrogenase	951	4.996816635	0.13648017	Yes
row_25	160101_at	Hmox1	heme oxygenase (decycling) 1	958	4.996791363	0.14445862	Yes
row_26	93793_at	Lasp1	LIM and SH3 protein 1	998	4.996626377	0.14975844	Yes
row_27	94928_at	Tnfrsf1b	tumor necrosis factor receptor superfamily, member 1b	1356	4.994658947	0.12924533	Yes
row_28	99993_at	Anpep	alanine (membrane) aminopeptidase	1425	4.994265556	0.13218744	Yes
row_29	103335_at	Lgals9	lectin, galactose binding, soluble 9	1426	4.994261265	0.14064859	Yes
row_30	100564_at	Ddt	D-dopachrome tautomerase	1439	4.994179249	0.14813563	Yes
row_31	100134_at	Eng	endoglin	1479	4.994016171	0.15343103	Yes
row_32	99100_at	Stat3	signal transducer and activator of transcription 3	1500	4.993889332	0.16026829	Yes
row_33	99532_at	Tob1	transducer of ErbB-2.1	1557	4.993552208	0.16418315	Yes
row_34	98110_at	Mdm2	transformed mouse 3T3 cell double minute 2	1559	4.993507385	0.17256185	Yes
row_35	99099_at	Stat3	signal transducer and activator of transcription 3	1880	4.991108418	0.15504573	Yes
row_36	99985_at	Txnrd1	thioredoxin reductase 1	1901	4.990971565	0.16187805	Yes
row_37	104669_at	Irf7	interferon regulatory factor 7	1966	4.990642548	0.16513868	Yes
row_38	96087_at	Mgat1	mannoside acetylglucosaminyltransferase 1	2027	4.990077972	0.16872299	Yes
row_39	161980_f_at	Bag3	Bcl2-associated athanogene 3	2152	4.988884449	0.1671109	Yes
row_40	103421_at	Sdfr2	stromal cell derived factor receptor 2	2156	4.988836765	0.17531936	Yes
row_41	94881_at	Cdkn1a	cyclin-dependent kinase inhibitor 1A (P21)	2207	4.98828125	0.17971227	Yes
row_42	160536_at	Hras1	Harvey rat sarcoma virus oncogene 1	2291	4.987623215	0.18142569	Yes
row_43	93940_at	Pon3	paraoxonase 3	2388	4.986707687	0.18208246	Yes
row_44	104188_at	Notch2	Notch gene homolog 2 (Drosophila)	2392	4.986675739	0.19028726	Yes
row_45	161522_i_at	Cst3	cystatin C	2494	4.98567915	0.19053647	Yes
row_46	94308_at	Fbln1	fibulin 1	2551	4.984867573	0.19443661	Yes

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row_47	96092_at	Hp	haptoglobin	2678	4.983020782	0.19265226	Yes
row_48	96167_at	Bag3	Bcl2-associated athanogene 3	2849	4.980476856	0.18729247	Yes
row_49	94932_at	Pdgfa	platelet derived growth factor, alpha	2909	4.97958374	0.19094017	Yes
row_50	101465_at	Stat1	signal transducer and activator of transcription 1	3001	4.977857113	0.19198775	Yes
row_51	161995_r_at	Got2	glutamate oxaloacetate transaminase 2, mitochondrial	3080	4.976061344	0.1940874	Yes
row_52	104597_at	Gbp2	guanylate nucleotide binding protein 2	3200	4.973339558	0.19285479	Yes
row_53	93728_at	Tgfb1i4	transforming growth factor beta 1 induced transcript 4	3376	4.968581676	0.18706903	Yes
row_54	94309_g_at	Fbln1	fibulin 1	3411	4.967675209	0.19272561	Yes
row_55	93956_at	Ifit3	interferon-induced protein with tetratricopeptide repeats 3	3545	4.962837696	0.19033892	Yes
row_56	160108_at	Nupr1	nuclear protein 1	3555	4.962417126	0.19801566	Yes
row_57	102811_at	Ext1	exostoses (multiple) 1	3585	4.961612701	0.20406778	Yes
row_58	162202_f_at	Irf7	interferon regulatory factor 7	3606	4.960826874	0.21084903	Yes
row_59	99058_at	Hmga2	high mobility group AT-hook 2	3622	4.960048676	0.21803477	Yes
row_60	97995_at	Tcf7	transcription factor 7, T-cell specific	3664	4.95861721	0.22310787	Yes
row_61	95024_at	Usp18	ubiquitin specific protease 18	3739	4.955738544	0.22549775	Yes
row_62	94057_g_at	Scd1	stearoyl-Coenzyme A desaturase 1	3762	4.95480299	0.23210646	Yes
row_63	160437_at	Txnrd2	thioredoxin reductase 2	3804	4.952189922	0.23716868	Yes
row_64	160882_at	Ogg1	8-oxoguanine DNA-glycosylase 1	3823	4.950908184	0.24409544	Yes
row_65	92560_g_at	Vcam1	vascular cell adhesion molecule 1	3891	4.945859432	0.24703671	Yes
row_66	103039_at	Itga5	integrin alpha 5 (fibronectin receptor alpha)	3939	4.94235611	0.2515953	Yes
row_67	98922_at	Itn1	intergral membrane protein 1	4027	4.936459064	0.25289738	Yes
row_68	98789_at	Cdkn2a	cyclin-dependent kinase inhibitor 2A	4037	4.935520172	0.26052856	Yes
row_69	162023_f_at	Thbd	thrombomodulin	4096	4.929349899	0.26417232	Yes
row_70	97772_at	Plau	plasminogen activator, urokinase	4242	4.915531635	0.26073155	Yes
row_71	103005_s_at	Cd44	CD44 antigen	4324	4.907401085	0.26247138	Yes
row_72	93724_at	Ror2	receptor tyrosine kinase-like orphan receptor 2	4407	4.895217896	0.26410943	Yes
row_73	162461_at	Capg	capping protein (actin filament), gelsolin-like	4471	4.884376526	0.2672712	Yes
row_74	104601_at	Thbd	thrombomodulin	4528	4.874554157	0.2709844	Yes
row_75	101993_at	Tnc	tenascin C	4724	4.828100681	0.26333743	No
row_76	100412_g_at	Aebp1	AE binding protein 1	5033	4.700131893	0.24630228	No
row_77	100411_at	Aebp1	AE binding protein 1	5062	4.68406868	0.25196537	No
row_78	94516_f_at	Penk1	preproenkephalin 1	5090	4.670951843	0.2576874	No
row_79	93094_at	Cdr2	cerebellar degeneration-related 2	5298	4.536394119	0.24857223	No
row_80	97689_at	F3	coagulation factor III	5384	4.481081009	0.24926516	No
row_81	100127_at	Crabp2	cellular retinoic acid binding protein II	5489	4.413406372	0.24830136	No
row_82	95019_at	Gstt1	glutathione S-transferase, theta 1	5491	4.411298275	0.2556937	No
row_83	101502_at	Tgif	TG interacting factor	5553	4.37305069	0.2581515	No
row_84	94307_at	Fbln1	fibulin 1	5751	4.233924389	0.24933553	No
row_85	160489_at	Tnfaip2	tumor necrosis factor, alpha-induced protein 2	5783	4.205762386	0.25394478	No
row_86	92909_at	Pgf	placental growth factor	5826	4.160098553	0.2575839	No
row_87	103004_r_at	Cd44	CD44 antigen	5839	4.149746418	0.26364034	No
row_88	161628_r_at	Fbln1	fibulin 1	5927	4.068330765	0.26347166	No
row_89	93352_at	Tgm2	transglutaminase 2, C polypeptide	6042	3.981112719	0.26096386	No
row_90	103309_at	Frap1	FK506 binding protein 12-rapamycin associated protein 1	6114	3.927751541	0.26185563	No
row_91	99931_at	Lama5	Laminin, alpha 5	6280	3.792697906	0.25488934	No
row_92	100981_at	Ifit1	interferon-induced protein with tetratricopeptide repeats 1	6319	3.768879652	0.25819033	No
row_93	102689_at	Tapbp	TAP binding protein	6593	3.546254396	0.24204099	No
row_94	100136_at	Lamp2	lysosomal membrane glycoprotein 2	6626	3.52387476	0.24541385	No
row_95	103065_at	Slc20a1	solute carrier family 20, member 1	6752	3.428274393	0.24107666	No

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row_96	102800_at	Foxc2	forkhead box C2	6835	3.369166374	0.2401293	No
row_97	160653_at	Tomm40	translocase of outer mitochondrial membrane 40 homolog (yeast)	7024	3.223811626	0.2303325	No
row_98	160656_i_at	Fem1b	feminization 1 homolog b (C. elegans)	7071	3.195279837	0.23201239	No
row_99	102255_at	Osmr	oncostatin M receptor	7311	3.031184912	0.21774995	No
row_100	99433_at	Pstpip2	proline-serine-threonine phosphatase-interacting protein 2	7369	2.989764452	0.21818888	No
row_101	92558_at	Vcam1	vascular cell adhesion molecule 1	7478	2.924094439	0.21437728	No
row_102	93852_at	Mef2a	myocyte enhancer factor 2A	7511	2.905363798	0.21670228	No
row_103	93723_at	Ror2	receptor tyrosine kinase-like orphan receptor 2	7635	2.817457438	0.21149258	No
row_104	101918_at	Tgfb1	transforming growth factor, beta 1	7742	2.753520489	0.20755433	No
row_105	95302_at	Frap1	FK506 binding protein 12-rapamycin associated protein 1	7778	2.736922503	0.20935047	No
row_106	97504_at	Ccnd2	cyclin D2	7860	2.697816849	0.20734689	No
row_107	97529_at	Anxa8	annexin A8	7934	2.653901815	0.20591821	No
row_108	162362_f_at	Tnc	tenascin C	8033	2.602716208	0.20237376	No
row_109	92960_at	Lif	leukemia inhibitory factor	8038	2.599512339	0.20645313	No
row_110	103833_at	Hipk2	homeodomain interacting protein kinase 2	8107	2.553763628	0.20526062	No
row_111	95335_at	Cx3cr1	chemokine (C-X3-C) receptor 1	8263	2.447486877	0.19682693	No
row_112	160469_at	Thbs1	thrombospondin 1	8274	2.440056801	0.2001492	No
row_113	160353_i_at	Mapkapk2	MAP kinase-activated protein kinase 2	8642	2.238011122	0.17415422	No
row_114	98793_at	Gdf5	growth differentiation factor 5	8655	2.229707956	0.17695779	No
row_115	104469_at	Gp38	glycoprotein 38	8687	2.207695961	0.17818198	No
row_116	101707_at	Aldh1a2	aldehyde dehydrogenase family 1, subfamily A2	8743	2.179476738	0.17741045	No
row_117	103003_i_at	Cd44	CD44 antigen	8840	2.135253906	0.17323637	No
row_118	101590_at	Lamp2	lysosomal membrane glycoprotein 2	8848	2.130235434	0.17627722	No
row_119	101208_at	Slc7a1	solute carrier family 7 (cationic amino acid transporter, y+ system), member 1	8865	2.119871616	0.17857005	No
row_120	92495_at	Cnot4	CCR4-NOT transcription complex, subunit 4	8959	2.06960845	0.17452824	No
row_121	94056_at	Scd1	stearoyl-Coenzyme A desaturase 1	8974	2.06282258	0.17688674	No
row_122	101828_at	Ret	ret proto-oncogene	9041	2.023391724	0.174958	No
row_123	94147_at	Serpine1	serine (or cysteine) proteinase inhibitor, clade E, member 1	9095	1.993622541	0.17403394	No
row_124	99835_at	Fosl1	fos-like antigen 1	9162	1.956693769	0.17199221	No
row_125	93453_at	Rom1	rod outer segment membrane protein 1	9180	1.947319508	0.17391156	No
row_126	94177_at	Hsd17b7	hydroxysteroid (17-beta) dehydrogenase 7	9203	1.933249474	0.17540124	No
row_127	94517_r_at	Penk1	preproenkephalin 1	9300	1.887670875	0.1708077	No
row_128	99097_at	Eif4e	eukaryotic translation initiation factor 4E	9478	1.797533154	0.15948732	No
row_129	161492_i_at	Mgat1	mannoside acetylglucosaminyltransferase 1	9555	1.765254617	0.15630963	No
row_130	92365_at	Figf	c-fos induced growth factor	9601	1.740117908	0.15560539	No
row_131	101342_at	Notch2	Notch gene homolog 2 (Drosophila)	9799	1.641328573	0.14239712	No
row_132	94635_at	Tacr1	tachykinin receptor 1	9860	1.612682819	0.14025955	No
row_133	98054_at	Ecm1	extracellular matrix protein 1	9895	1.592420578	0.14019787	No
row_134	100143_at	Zyx	Zyxin	9898	1.592249036	0.14273308	No
row_135	161404_at	Bhmt	betaine-homocysteine methyltransferase	10038	1.522696495	0.13403125	No
row_136	97729_at	Enc1	ectodermal-neural cortex 1	10043	1.52066505	0.13628286	No
row_137	94338_g_at	Gas2	growth arrest specific 2	10211	1.44379425	0.1251748	No
row_138	161285_r_at	Itn1	integral membrane protein 1	10352	1.393807888	0.116173446	No
row_139	94133_r_at	Mef2a	myocyte enhancer factor 2A	10397	1.37625134	0.114933915	No
row_140	161293_r_at	Psme1	proteasome (prosome, macropain) 28 subunit, alpha	10412	1.370110035	0.11611884	No
row_141	97487_at	Serpine2	serine (or cysteine) proteinase inhibitor, clade E, member 2	10425	1.363674045	0.1174552	No
row_142	97994_at	Tcf7	transcription factor 7, T-cell specific	10428	1.361947417	0.119600244	No
row_143	160095_at	Lox	lysyl oxidase	10438	1.358007789	0.12117048	No
row_144	104712_at	Myc	myelocytomatosis oncogene	10543	1.315863848	0.11495891	No

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row_145	161158_f_at	Ereg	epiregulin	10627	1.289476156	0.11040704	No
row_146	99964_at	Vdr	vitamin D receptor	10704	1.267279029	0.1063857	No
row_147	94049_at	Bhmt	betaine-homocysteine methyltransferase	10714	1.265568733	0.10779933	No
row_148	161702_f_at	Lama5	Laminin, alpha 5	10774	1.242786646	0.10511625	No
row_149	94337_at	Gas2	growth arrest specific 2	10793	1.236186147	0.105749644	No
row_150	102637_at	Tgfb3	transforming growth factor, beta receptor III	10835	1.215848327	0.104481846	No
row_151	99965_at	Vdr	vitamin D receptor	10857	1.210025907	0.104827434	No
row_152	97937_at	Klf5	Kruppel-like factor 5	10947	1.1739254	0.09959283	No
row_153	93930_at	Lasp1	LIM and SH3 protein 1	11104	1.125409603	0.08883815	No
row_154	103904_at	Igfbp6	insulin-like growth factor binding protein 6	11114	1.123057485	0.090010345	No
row_155	104647_at	Ptgs2	prostaglandin-endoperoxide synthase 2	11180	1.102229834	0.08660217	No
row_156	102298_at	Ngfb	nerve growth factor, beta	11185	1.100486994	0.08814193	No
row_157	94058_r_at	Scd1	stearoyl-Coenzyme A desaturase 1	11187	1.099624276	0.089923725	No
row_158	161525_f_at	Rom1	rod outer segment membrane protein 1	11210	1.093614936	0.08999093	No
row_159	98802_at	Ereg	epiregulin	11335	1.062071443	0.08172614	No
row_160	92266_at	Il11	interleukin 11	11354	1.056525707	0.08205516	No
row_161	161164_r_at	Penk1	preproenkephalin 1	11407	1.040513873	0.07959753	No
row_162	162016_f_at	Foxc2	forkhead box C2	11454	1.025312066	0.07760112	No
row_163	93981_at	Plat	plasminogen activator, tissue	11474	1.021116734	0.077788986	No
row_164	93430_at	Cmkor1	chemokine orphan receptor 1	12029	0.869301796	0.03429785	No
row_165	96509_at	Ms4a2	membrane-spanning 4-domains, subfamily A, member 2	12196	0.817109287	0.022209242	No
row_166	100383_at	Zfp179	zinc finger protein 179	12282	0.783933878	0.01663857	No