

Supplementary Table 12 Gene ontology enrichment analysis of the hyper-methylated genes comparing low-immune and high-immune low-grade glioma sub-groups.

GO Term	originalGeneSetSize	actualGeneSetSize	logitNES	p-value
IMMUNE RESPONSE	1100	425	0.8575	6.78E-24
CELL ACTIVATION	568	287	0.8188	1.37E-15
REGULATION OF IMMUNE RESPONSE	858	427	0.6317	4.67E-14
POSITIVE REGULATION OF IMMUNE SYSTEM PROCESS	867	428	0.6125	2.37E-13
LEUKOCYTE ACTIVATION	414	213	0.8673	2.98E-13
LEUKOCYTE CELL CELL ADHESION	255	132	1.1041	5.46E-13
LYMPHOCYTE ACTIVATION	342	185	0.9163	7.53E-13
REGULATION OF CYTOKINE PRODUCTION	563	287	0.7260	1.06E-12
POSITIVE REGULATION OF IMMUNE RESPONSE	563	286	0.6876	1.49E-11
REGULATION OF CELL ADHESION	629	299	0.6650	2.44E-11
CELL CELL ADHESION	608	219	0.7553	8.85E-11
SIGNALING RECEPTOR ACTIVITY	1393	221	0.7510	9.25E-11
ADAPTIVE IMMUNE RESPONSE	288	103	1.0987	2.11E-10
IMMUNE EFFECTOR PROCESS	486	235	0.7115	2.31E-10
REGULATION OF CELL CELL ADHESION	380	182	0.8025	3.47E-10
SINGLE ORGANISM CELL ADHESION	459	199	0.7569	5.59E-10
REGULATION OF HOMOTYPIC CELL CELL ADHESION	307	156	0.8527	7.14E-10
HALLMARK ALLOGRAFT REJECTION	200	106	1.0407	8.64E-10
IMMUNE SYSTEM DEVELOPMENT	582	322	0.5842	1.04E-09
POSITIVE REGULATION OF CYTOKINE PRODUCTION	370	185	0.7677	1.32E-09
INNATE IMMUNE RESPONSE	619	236	0.6734	1.70E-09
REGULATION OF CELL ACTIVATION	484	236	0.6683	2.23E-09
B CELL RECEPTOR SIGNALING PATHWAY	54	22	2.7246	2.21E-09
ACTIVATION OF IMMUNE RESPONSE	427	224	0.6854	2.32E-09
LEUKOCYTE DIFFERENTIATION	292	159	0.7856	8.64E-09
REGULATION OF LYMPHOCYTE DIFFERENTIATION	132	64	1.2703	1.10E-08
POSITIVE REGULATION OF CELL CELL ADHESION	243	116	0.9178	1.15E-08
POSITIVE REGULATION OF CELL ADHESION	376	178	0.7333	1.23E-08
POSITIVE REGULATION OF T CELL PROLIFERATION	95	41	1.5843	3.18E-08
MEMBRANE MICRODOMAIN	288	148	0.7823	3.13E-08
REGULATION OF LEUKOCYTE PROLIFERATION	206	98	0.9607	4.28E-08
INFLAMMATORY RESPONSE	454	153	0.7588	4.66E-08
LEUKOCYTE MEDIATED IMMUNITY	189	68	1.1662	4.81E-08
REGULATION OF CYTOKINE SECRETION	149	53	1.3284	6.23E-08
ANTIGEN RECEPTOR MEDIATED SIGNALING PATHWAY	195	113	0.8773	6.67E-08
LYMPHOCYTE DIFFERENTIATION	209	118	0.8476	9.28E-08
REGULATION OF T CELL DIFFERENTIATION	107	53	1.2874	1.40E-07
HALLMARK INTERFERON GAMMA RESPONSE	200	130	0.7870	1.78E-07
POSITIVE REGULATION OF CELL ACTIVATION	311	145	0.7420	1.91E-07
POSITIVE REGULATION OF LYMPHOCYTE DIFFERENTIATION	80	37	1.5639	2.00E-07
T CELL SELECTION	36	21	2.2329	2.65E-07
REGULATION OF LEUKOCYTE MEDIATED IMMUNITY	156	83	0.9783	2.87E-07
REGULATION OF ALPHA BETA T CELL ACTIVATION	68	34	1.6010	3.72E-07
T CELL DIFFERENTIATION	123	74	1.0254	4.13E-07
REGULATION OF T CELL PROLIFERATION	147	65	1.0841	5.86E-07
ADAPTIVE IMMUNE RESPONSE BASED ON SOMATIC RECOMBINATION OF IMMUNE RECEPTORS BUILT FROM IMMUNE RECEPTOR GENES	154	59	1.1418	6.03E-07
NEGATIVE REGULATION OF LEUKOCYTE MEDIATED IMMUNITY	47	25	1.8533	9.63E-07
NEGATIVE REGULATION OF IMMUNE SYSTEM PROCESS	372	175	0.6310	1.02E-06
REGULATION OF PROTEIN SECRETION	389	168	0.6422	1.10E-06
POSITIVE REGULATION OF LEUKOCYTE PROLIFERATION	136	63	1.0614	1.40E-06
NEGATIVE REGULATION OF CYTOKINE PRODUCTION	211	101	0.8159	1.85E-06
REGULATION OF LEUKOCYTE MIGRATION	149	46	1.2420	1.99E-06
REGULATION OF LEUKOCYTE DIFFERENTIATION	232	107	0.7864	2.15E-06
G PROTEIN COUPLED RECEPTOR SIGNALING PATHWAY	1193	161	0.6335	2.49E-06
SIDE OF MEMBRANE	428	176	0.6054	2.50E-06
POSITIVE REGULATION OF IMMUNE EFFECTOR PROCESS	156	78	0.9132	3.06E-06
NEGATIVE REGULATION OF SECRETION	200	71	0.9473	4.04E-06
POSITIVE REGULATION OF LEUKOCYTE DIFFERENTIATION	131	63	1.0052	4.44E-06
REGULATION OF INTERLEUKIN 6 PRODUCTION	104	44	1.2128	5.29E-06
MYELOID CELL DIFFERENTIATION	189	111	0.7394	5.36E-06
NEGATIVE REGULATION OF IMMUNE RESPONSE	121	57	1.0456	5.95E-06
REGULATION OF T CELL RECEPTOR SIGNALING PATHWAY	28	19	1.9960	6.23E-06
CELL ACTIVATION INVOLVED IN IMMUNE RESPONSE	139	67	0.9505	7.04E-06
REGULATION OF CYTOSOLIC CALCIUM ION CONCENTRATION	203	65	0.9500	9.72E-06
POSITIVE REGULATION OF ALPHA BETA T CELL ACTIVATION	51	26	1.5902	9.79E-06
REGULATION OF ALPHA BETA T CELL DIFFERENTIATION	46	22	1.7490	1.12E-05
POSITIVE REGULATION OF LEUKOCYTE MIGRATION	109	37	1.2777	1.22E-05
NEGATIVE REGULATION OF CELL ADHESION	223	99	0.7419	1.60E-05
REGULATION OF ANTIGEN RECEPTOR MEDIATED SIGNALING PATHWAY	41	26	1.5387	1.69E-05
G PROTEIN COUPLED RECEPTOR ACTIVITY	879	66	0.9101	1.86E-05
REGULATION OF LYMPHOCYTE MEDIATED IMMUNITY	114	58	0.9731	1.92E-05
RESPONSE TO ACID CHEMICAL	319	130	0.6361	2.09E-05
POSITIVE REGULATION OF SECRETION	370	153	0.5853	2.11E-05
LEUKOCYTE MIGRATION	259	98	0.7311	2.32E-05
PLATELET ACTIVATION	142	77	0.8271	2.40E-05
NEGATIVE REGULATION OF LYMPHOCYTE MEDIATED IMMUNITY	36	19	1.8213	2.50E-05
RESPONSE TO MOLECULE OF BACTERIAL ORIGIN	321	139	0.6079	2.57E-05
NEGATIVE REGULATION OF IMMUNE EFFECTOR PROCESS	102	55	0.9805	2.76E-05
REGULATION OF ADAPTIVE IMMUNE RESPONSE	123	64	0.8982	3.11E-05
LYMPHOCYTE MEDIATED IMMUNITY	147	50	1.0227	3.22E-05
NEGATIVE REGULATION OF CELL ACTIVATION	158	73	0.8315	3.56E-05
POSITIVE REGULATION OF ALPHA BETA T CELL DIFFERENTIATION	37	18	1.8363	3.64E-05