

Supplementary Table S8. GSEA between HR-proficient and HR-deficient patients using GO_BP Immune response gene sets

NAME	SIZE	ES	NES	NOM p-val	FDR q-val	FWER p-val	RANK AT MAX
GO_ADAPTIVE_IMMUNE_RESPONSE	379	0.510053	2.664999	p<0.001	q<0.001	p<0.001	3514
GO_IMMUNE_RESPONSE_REGULATING_CELL_SURFACE_RECEPTOR_SIGNALING_PATHWAY	366	0.508331	2.642691	p<0.001	q<0.001	p<0.001	4398
GO_REGULATION_OF_INNATE_IMMUNE_RESPONSE	410	0.468298	2.484407	p<0.001	q<0.001	p<0.001	3506
GO_T_CELL_ACTIVATION_INVOLVED_IN_IMMUNE_RESPONSE	98	0.547128	2.446655	p<0.001	q<0.001	p<0.001	4331
GO_T_HELPER_1_TYPE_IMMUNE_RESPONSE	41	0.638979	2.391949	p<0.001	q<0.001	p<0.001	3738
GO_ADAPTIVE_IMMUNE_RESPONSE_BASED_ON_SOMATIC_RECOMBINATION_OF_IMMUNE_RECEPTOR	245	0.480654	2.391187	p<0.001	q<0.001	p<0.001	3618
GO_T_CELL_DIFFERENTIATION_INVOLVED_IN_IMMUNE_RESPONSE	64	0.586378	2.363931	p<0.001	q<0.001	p<0.001	4331
GO_LYMPHOCYTE_ACTIVATION_INVOLVED_IN_IMMUNE_RESPONSE	169	0.469666	2.259244	p<0.001	q<0.001	p<0.001	4331
GO_ACTIVATION_OF_INNATE_IMMUNE_RESPONSE	291	0.433123	2.206835	p<0.001	q<0.001	p<0.001	4139
GO_REGULATION_OF_T_HELPER_1_TYPE_IMMUNE_RESPONSE	27	0.661571	2.203886	p<0.001	q<0.001	p<0.001	2315
GO_NEGATIVE_REGULATION_OF_IMMUNE_RESPONSE	135	0.478324	2.183709	p<0.001	q<0.001	p<0.001	3506
GO_POSITIVE_REGULATION_OF_ADAPTIVE_IMMUNE_RESPONSE	98	0.488219	2.171156	p<0.001	q<0.001	p<0.001	4331
GO_REGULATION_OF_ADAPTIVE_IMMUNE_RESPONSE	154	0.455728	2.155089	p<0.001	q<0.001	p<0.001	3738
GO_NEGATIVE_REGULATION_OF_PRODUCTION_OF_MOLECULAR_MEDIATOR_OF_IMMUNE_RESPONSE	36	0.56058	2.044436	p<0.001	q<0.001	p<0.001	3286
GO_NEGATIVE_REGULATION_OF_INNATE_IMMUNE_RESPONSE	49	0.529042	2.01814	p<0.001	q<0.001	p<0.001	3006
GO_NATURAL_KILLER_CELL_ACTIVATION_INVOLVED_IN_IMMUNE_RESPONSE	31	0.595279	2.008804	p<0.001	q<0.001	p<0.001	2358
GO_NEGATIVE_REGULATION_OF_CYTOKINE_PRODUCTION_INVOLVED_IN_IMMUNE_RESPONSE	25	0.618425	2.003259	p<0.001	q<0.001	p<0.001	3006
GO_POSITIVE_REGULATION_OF_T_HELPER_1_TYPE_IMMUNE_RESPONSE	20	0.644139	1.992851	p<0.001	q<0.001	p<0.001	3738
GO_HUMORAL_IMMUNE_RESPONSE	232	0.401072	1.974344	p<0.001	3.08E-04	0.002	3667
GO_REGULATION_OF_CYTOKINE_PRODUCTION_INVOLVED_IN_IMMUNE_RESPONSE	83	0.447502	1.929059	p<0.001	0.001033	0.007	3006
GO_CYTOKINE_PRODUCTION_INVOLVED_IN_IMMUNE_RESPONSE	99	0.437141	1.920256	p<0.001	0.001109	0.008	3006
GO_ANTIMICROBIAL_HUMORAL_IMMUNE_RESPONSE_MEDIATED_BY_ANTIMICROBIAL_PEPTIDE	68	0.465225	1.919163	p<0.001	0.001059	0.008	2221
GO_REGULATION_OF_T_HELPER_17_TYPE_IMMUNE_RESPONSE	19	0.615787	1.909776	0.0023753	0.001111	0.009	5438
GO_T_HELPER_17_TYPE_IMMUNE_RESPONSE	27	0.57183	1.894576	0.00257069	0.001385	0.012	5438
GO_INNATE_IMMUNE_RESPONSE_ACTIVATING_CELL_SURFACE_RECEPTOR_SIGNALING_PATHWAY	108	0.419977	1.877408	p<0.001	0.001539	0.014	5146
GO_PRODUCTION_OF_MOLECULAR_MEDIATOR_OF_IMMUNE_RESPONSE	184	0.381509	1.807176	p<0.001	0.002461	0.024	3286
GO_REGULATION_OF_PRODUCTION_OF_MOLECULAR_MEDIATOR_OF_IMMUNE_RESPONSE	135	0.392162	1.804748	0.00290698	0.00237	0.024	3286
GO_REGULATION_OF_TYPE_2_IMMUNE_RESPONSE	29	0.52377	1.75679	0.00479616	0.004074	0.041	3598
GO_HUMORAL_IMMUNE_RESPONSE_MEDIATED_BY_CIRCULATING_IMMUNOGLOBULIN	46	0.457391	1.753524	p<0.001	0.004266	0.045	3618
GO_TYPE_2_IMMUNE_RESPONSE	35	0.486732	1.734783	0.0023753	0.005236	0.057	3598
GO_POSITIVE_REGULATION_OF_PRODUCTION_OF_MOLECULAR_MEDIATOR_OF_IMMUNE_RESPONSE	91	0.382287	1.668534	p<0.001	0.008658	0.093	4414
GO_POSITIVE_REGULATION_OF_CYTOKINE_PRODUCTION_INVOLVED_IN_IMMUNE_RESPONSE	53	0.409773	1.615374	0.0075188	0.013284	0.144	4280
GO_NEGATIVE_REGULATION_OF_ADAPTIVE_IMMUNE_RESPONSE	45	0.429797	1.605747	0.00514139	0.014116	0.156	3043
GO_IMMUNOGLOBULIN_PRODUCTION_INVOLVED_IN_IMMUNOGLOBULIN_MEDIATED_IMMUNE_RESPC	52	0.399584	1.545182	0.00262467	0.021767	0.241	1950
GO_POSITIVE_REGULATION_OF_TYPE_2_IMMUNE_RESPONSE	15	0.544353	1.536424	0.03944315	0.022956	0.257	3598
GO_IMMUNE_RESPONSE_TO_TUMOR_CELL	15	0.532487	1.527021	0.05463183	0.023691	0.273	1219
GO_INNATE_IMMUNE_RESPONSE_IN_MUCOSA	21	0.492146	1.52632	0.02625298	0.023183	0.275	1859
GO_B_CELL_ACTIVATION_INVOLVED_IN_IMMUNE_RESPONSE	70	0.367309	1.521336	0.01485149	0.023477	0.284	4331
GO_REGULATION_OF_MAST_CELL_ACTIVATION_INVOLVED_IN_IMMUNE_RESPONSE	29	0.45704	1.519014	0.02469136	0.023286	0.288	3362
GO_POSITIVE_REGULATION_OF_HUMORAL_IMMUNE_RESPONSE	15	0.509237	1.44882	0.06367925	0.037063	0.431	2087
GO_ORGAN_OR_TISSUE_SPECIFIC_IMMUNE_RESPONSE	33	0.398445	1.392855	0.06313131	0.051722	0.551	1859
GO_CYTOKINE_SECRETION_INVOLVED_IN_IMMUNE_RESPONSE	19	0.461902	1.391068	0.1	0.051266	0.559	3856
GO_REGULATION_OF_HUMORAL_IMMUNE_RESPONSE	65	0.331578	1.354395	0.04521276	0.063183	0.636	3103
GO_POSITIVE_REGULATION_OF_MYELOID_LEUKOCYTE_CYTOKINE_PRODUCTION_INVOLVED_IN_IMM	19	0.436232	1.323345	0.13333334	0.075303	0.72	3598
GO_MATURE_B_CELL_DIFFERENTIATION_INVOLVED_IN_IMMUNE_RESPONSE	19	0.250719	0.767615	0.8303167	0.890431	1	4142