

**Supplementary Table 13: List of enriched pathways for 666 genes in module 31 from WGCNA analysis**

Function	FDR	Genes in network	Genes in genome
T cell activation	1.69E-19	66	452
regulation of cell activation	1.18E-14	58	593
regulation of leukocyte activation	1.18E-14	56	556
regulation of lymphocyte activation	5.95E-14	51	480
regulation of T cell activation	8.83E-12	42	309
antigen receptor-mediated signaling pathway	4.21E-11	36	258
positive regulation of leukocyte activation	1.27E-09	39	379
positive regulation of cell activation	2.75E-09	40	391
positive regulation of lymphocyte activation	7.78E-09	37	341
T cell receptor signaling pathway	8.36E-09	27	144
T cell receptor signaling pathway	8.36E-09	21	99
immune response-activating cell surface receptor	1.86E-08	41	409
T cell receptor complex	3.29E-08	10	17
positive regulation of T cell activation	3.64E-08	30	204
cellular defense response	1.50E-07	15	58
immune response-regulating cell surface receptor	5.57E-07	45	440
T cell differentiation	3.73E-06	37	236
lymphocyte costimulation	5.81E-06	14	56
T cell costimulation	5.81E-06	14	55
lymphocyte differentiation	6.12E-06	48	346
leukocyte differentiation	1.58E-05	56	505
hemopoiesis	2.58E-05	69	831
external side of plasma membrane	9.66E-05	43	365
hematopoietic or lymphoid organ development	0.00010501	73	872
immune system development	0.00010501	77	918
lymphocyte migration	0.00012429	15	103
B cell activation	0.00017007	30	309
cytokine receptor activity	0.00020042	14	94
side of membrane	0.00078533	55	560
receptor complex	0.00088427	41	396
leukocyte migration	0.0009346	36	476
T cell apoptotic process	0.00108952	10	51
leukocyte mediated immunity	0.00125424	52	867
signaling adaptor activity	0.00128438	12	80
T cell migration	0.00206739	11	58
lymphocyte apoptotic process	0.003853	11	72
lymphocyte proliferation	0.00455017	30	268
SH3/SH2 adaptor activity	0.00517188	10	54
mononuclear cell proliferation	0.00526335	30	270
alpha-beta T cell activation	0.00961377	25	131
leukocyte proliferation	0.00988882	31	287
adaptive immune response	0.01106184	64	614
CD4-positive, alpha-beta T cell activation	0.01656242	12	86
lymphocyte mediated immunity	0.01656242	31	345
leukocyte apoptotic process	0.01757722	13	103
regulation of leukocyte mediated immunity	0.01768682	19	190
regulation of natural killer cell mediated immunity	0.0176964	12	42
regulation of T cell apoptotic process	0.0176964	8	37
immunological synapse	0.02453644	12	35
SH2 domain binding	0.02681714	8	33
regulation of lymphocyte differentiation	0.03705731	20	168
regulation of lymphocyte proliferation	0.04707768	25	208