

**Supplementary Table 6.** Gene ontology biological process analysis of top three modules

Term	Count	P value	Genes
<b>Module 1</b>			
GO:0006954: Inflammatory response	4	5.87E-04	CHI3L1, CXCL1, TLR6, TLR4
GO:0006955: Immune response	4	7.98E-04	IL1RN, CXCL1, TLR6, TLR4
GO:1900227: Positive regulation of NLRP3 inflammasome complex assembly	2	2.38E-03	TLR6, TLR4
GO:0070374: Positive regulation of ERK1 and ERK2 cascade	3	2.90E-03	CHI3L1, TLR4, CD44
GO:0050702: Interleukin-1 beta secretion	2	3.81E-03	TLR6, TLR4
GO:0050707: Regulation of cytokine secretion	2	5.23E-03	TLR6, TLR4
GO:0042088: T-helper 1 type immune response	2	5.70E-03	TLR6, TLR4
<b>Module 2</b>			
GO:0043066: Negative regulation of apoptotic process	6	1.54E-05	IL2RB, PTK2B, PIK3R1, MMP9, CD44, LTF
GO:0070374: Positive regulation of ERK1 and ERK2 cascade	4	2.95E-04	PTK2B, CHI3L1, TLR4, CD44
GO:0006954: Inflammatory response	4	2.76E-03	CHI3L1, CXCL1, TLR6, TLR4
GO:0006955: Immune response	4	3.71E-03	IL1RN, CXCL1, TLR6, TLR4
GO:1900227: Positive regulation of NLRP3 inflammasome complex assembly	2	3.87E-03	TLR6, TLR4
GO:0050900: Leukocyte migration	3	3.88E-03	PIK3R1, MMP9, CD44
<b>Module 3</b>			
GO:0043066: Negative regulation of apoptotic process	7	1.47E-05	IL2RB, PTK2B, PIK3R1, PSEN1, MMP9, CD44, LTF
GO:0006954: Inflammatory response	6	8.61E-05	SLC11A1, FPR1, CHI3L1, CXCL1, TLR6, TLR4
GO:0006955: Immune response	6	1.41E-04	IL1RN, SLC11A1, NCF4, CXCL1, TLR6, TLR4