

**Table S2. Results of GO functional annotation analyses**

GO term	Description	Count	P Value
GO:0002376	immune system process	16	$1.01 \times 10^{-12}$
GO:0030593	neutrophil chemotaxis	8	$2.51 \times 10^{-9}$
GO:0045087	innate immune response	12	$5.84 \times 10^{-8}$
GO:0006954	inflammatory response	11	$1.50 \times 10^{-7}$
GO:0006935	chemotaxis	7	$2.31 \times 10^{-6}$
GO:0002523	leukocyte migration involved in inflammatory response	3	$7.98 \times 10^{-4}$
GO:0090026	positive regulation of monocyte chemotaxis	3	$9.29 \times 10^{-4}$
GO:0006955	immune response	6	$1.92 \times 10^{-3}$
GO:0030574	collagen catabolic process	3	$2.76 \times 10^{-3}$
GO:0090023	positive regulation of neutrophil chemotaxis	3	$3.75 \times 10^{-3}$
GO:2001244	positive regulation of intrinsic apoptotic signaling pathway	3	$4.29 \times 10^{-3}$
GO:0007155	cell adhesion	7	$4.89 \times 10^{-3}$
GO:0050900	leukocyte migration	3	$5.49 \times 10^{-3}$
GO:0070488	neutrophil aggregation	2	$6.52 \times 10^{-3}$
GO:0050755	chemokine metabolic process	2	$6.52 \times 10^{-3}$
GO:0008588	release of cytoplasmic sequestered NF-kappaB	2	$9.76 \times 10^{-3}$
GO:0072672	neutrophil extravasation	2	$9.76 \times 10^{-3}$
GO:0038094	Fc-gamma receptor signaling pathway	2	$9.76 \times 10^{-3}$
GO:0070945	neutrophil mediated killing of gram-negative bacterium	2	$9.76 \times 10^{-3}$
GO:0002250	adaptive immune response	4	$1.06 \times 10^{-2}$
GO:0019221	cytokine-mediated signaling pathway	4	$1.21 \times 10^{-2}$
GO:0007204	positive regulation of cytosolic calcium ion concentration	4	$1.25 \times 10^{-2}$
GO:0002793	positive regulation of peptide secretion	2	$1.30 \times 10^{-2}$
GO:0042107	cytokine metabolic process	2	$1.30 \times 10^{-2}$
GO:0002374	cytokine secretion involved in immune response	2	$1.30 \times 10^{-2}$
GO:0002292	T cell differentiation involved in immune response	2	$1.30 \times 10^{-2}$
GO:0018119	peptidyl-cysteine S-nitrosylation	2	$1.62 \times 10^{-2}$
GO:0050729	positive regulation of inflammatory response	3	$1.80 \times 10^{-2}$
GO:1900016	negative regulation of cytokine production involved in inflammatory response	2	$2.26 \times 10^{-2}$
GO:0032496	response to lipopolysaccharide	4	$2.65 \times 10^{-2}$
GO:0050728	negative regulation of inflammatory response	3	$3.28 \times 10^{-2}$
GO:0007229	integrin-mediated signaling pathway	3	$3.70 \times 10^{-2}$
GO:0045824	negative regulation of innate immune response	2	$4.79 \times 10^{-2}$
GO:0030502	negative regulation of bone mineralization	2	$4.79 \times 10^{-2}$
GO:0010820	positive regulation of T cell chemotaxis	2	$4.79 \times 10^{-2}$
GO:0014002	astrocyte development	2	$5.41 \times 10^{-2}$

GO:0043122	regulation of I-kappaB kinase/NF-kappaB signaling	2	$5.41 \times 10^{-2}$
GO:0006968	cellular defense response	2	$5.41 \times 10^{-2}$
GO:0045766	positive regulation of angiogenesis	3	$5.94 \times 10^{-2}$
GO:0033198~	response to ATP	2	$6.33 \times 10^{-2}$
GO:0030595	leukocyte chemotaxis	2	$6.94 \times 10^{-2}$
GO:0035987	endodermal cell differentiation	2	$8.45 \times 10^{-2}$
GO:0001819	positive regulation of cytokine production	2	$9.05 \times 10^{-2}$

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