

1 **Table S1.** Disease activity index (DAI) scoring system

Score	Body weight change ^a	Stool Consistency	Stool Occult Blood ^b
0	None body weight loss	Granular hard stools	No stool occult blood
1	1–5% body weight loss	Soft stools, granular shapes	Color change from light green to green within 10 s
2	6–10% body weight loss	Very soft, shapeless stools	Color change from green to blue within 30 s
3	11–18% body weight loss	Watery stools (Diarrhea)	Color change from green to dark blue immediately
4	> 18% body weight loss		Visible rectal bleeding

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3 **Table S2.** Histological scores of colon damage

Score	Inflammation severity	Inflammation extent	Crypt damage
0	None inflammation	None inflammation	Intact crypt, no damage
1	Mild inflammation with slight lesion sites	Inflammation observed only in mucosa	Basal 1/3 crypt damaged
2	Moderate inflammation with several lesion sites	Inflammation observed in mucosa and submucosa positions	Basal 2/3 crypt damaged
3	Severe inflammation with whole colonic damage	Inflammation observed in transmural colonic tissues	Crypt lost but surface epithelium present
4			Crypt and surface epithelium lost

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5 **Table S3.** Primers used in this study.

Primer Name	Forward (5' -3')	Reverse (5' -3')
ZO-1	GGCCTTGGCCTAGCATACAC	GTCTTCATTTGACCCTCCCTC
Occludin	TCACTTTTCCTGCGGTGACTT	GGGAACGTGGCCGATATAAT
Claudin-1	AGCTGTGCATGGCCTCTTGT	CCAATGTCAATGGCAACACCC
MUC2	TGCTGACGAGTGGTTGGTGAAT	GATGAGGTGGCAGACAGGAGAC
IL-1 β	GCAACTGTTCCCTGAACTCAACT	ATCTTTTGGGGTCCGTCAACT
IL-2	GAGGCCAATTTTGTCTCCACA	GTCCAAGTTCATCTTCTAGGCAC
IL-6	CCAAGAGGTGAGTGCTTCCC	CTGTTGTTTCAGACTCTCTCCCT
IL-10	GCTCTTACTGACTGGCATGAG	CGCAGCTCTAGGAGCATGTG
IL-17	TTAACTCCCTTGGCGCAAAA	CTTTCCTCCGCATTGACAC
IL-22	ATGAGTTTTTCCCTTATGGGGAC	GCTGGAAGTTGGACACCTCAA
TNF- α	CCTGTAGCCCACGTCGTAG	GGGAGTAGACAAGGTACAACCC
TLR2	GACTCTTCACTTAAGCGAGTCT	AACCTGGCCAAGTTAGTATCTC
TLR4	GCCATCATTATGAGTGCCAATT	AGGGATAAGAACGCTGAGAATT
TGF- β	CTCCCGTGGCTTCTAGTGC	GCCTTAGTTTGGACAGGATCTG
BAFF	GGAACAGACGCGCTTTCCA	GGCCGGTCATTACCTTTTCGT
IgHA	GGCCTGTGGTGCAGGAGCTG	GGTGTGAGTGAAGGGGCGGC
β -actin	CCTAAGAGGAGGATGGTCGC	CTCAACACCTCAACCCCTC

7 **Table S4.** Transcriptome mRNA expression level.

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Protein name	Fold Change	
	DSS vs Control	BL300 vs DSS
IL-10	0.57-fold	2.16-fold
IL-6	6.55-fold	0.78-fold
IL-17	6.74-fold	0.82-fold
IL-1 β	70.82-fold	0.53-fold
TNF- α	9.54-fold	0.61-fold
IL-2	2.03-fold	0.25-fold
IgHA	0.41-fold	2.51-fold
TLR2	1.86-fold	0.35-fold
TLR4	2.33-fold	0.48-fold
Foxp3	0.57-fold	2.75-fold
CD4	0.58-fold	2.40-fold
CD8	0.47-fold	1.71-fold
TGF- β	0.59-fold	2.60-fold
CD19	1.49-fold	2.40-fold
BAFF	1.35-fold	1.40-fold
CCL9	2.26-fold	0.11-fold
BCMA	0.41-fold	2.86-fold