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Fig. S1.

- (a) Blood in the stool of experimental mice.
- (b) Mental state of experimental mice.
- (c) Spleen condition of experimental mice.

Supplementary figure legends

Supplementary figure legends

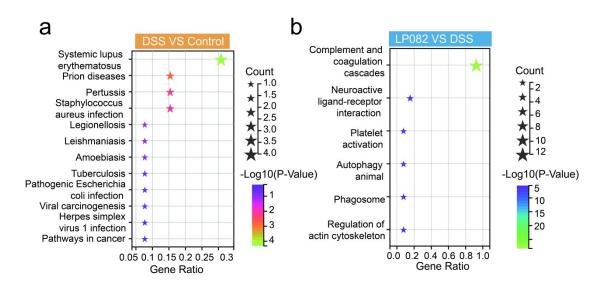


Fig. S2.

(a) KEGG pathway enriched by differentially expressed genes between DSS and control groups.

(b) KEGG pathway enriched by differentially expressed genes between LP082 and DSS groups.

Supplementary table legends

Score	Weight loss (%)	Stool consistency	Visible blood in faeces		
0	0	Normal	Normal		
1	1~5	Loose state, which is pasty and semi-formed	Positive for fecal occult blood test		
		stool that does not adhere to anus			
2	6~10	Obvious loose state, which is a pasty and	Strongly positive for fecal occult		
		basically unformed stool that does not	blood test		
		adhere to the anus			
3	11~15	Dilute stool is a watery stool that can	Visible blood in faeces		
		adhere to the anus			
4	≥16	The degree of loose stool is more obvious,	Obvious visible blood in faeces		
		and the thin water sample is more clear and			
		long			

Table S1.

Disease activity index scoring system of dextran sodium sulfate-induced colitis.

Supplementary table legends

Submucosal layer 1 muscular layer 2 Serous layer 3 Transmural 4 Range of inflammation 0 0	Project	Degree	Score
Moderate 2 Severe massive 3 Extremely severe and massive 4 Depth of inflammation None 0 Submucosal layer 1 muscular layer 2 Serous layer 3 Transmural 4 Range of inflammation 0 % 1 1 2 Serous layer 3 Transmural 4 Range of inflammation 0 % 1 26~50 2 51~75 3 76~100 4 Crypts damage None 1/3 crypt of basement was destroyed 1 2/3 crypt of basement was destroyed 2 Only intact surface epithelium 3 All crypts and epithelium were 4 destroyed 1 1~25% 1 26~50% 2	Inflammation	None	0
Severe massive 3 Extremely severe and massive 4 Depth of inflammation None 0 Submucosal layer 1 muscular layer 2 Serous layer 3 Transmural 4 Range of inflammation 0 %) 1 1 26 %) 1 26 21 3 1 4 3 7 0 %) 1 26 20 51 75 3 76 1 2/3 crypt of basement was destroyed 1 2/3 crypt of basement was destroyed 2 0nly intact surface epithelium 4 destroyed 6 1 25% 1 26~50% 1		Mild or few	1
Extremely severe and massive 4 Depth of inflammation None 0 Submucosal layer 1 muscular layer 2 Serous layer 3 Transmural 4 Range of inflammation 0 %) 1~25 1 26~50 26~50 2 51~75 3 76~100 4 Crypts damage None 1/3 crypt of basement was destroyed 1 2/3 crypt of basement was destroyed 2 Only intact surface epithelium 3 All crypts and epithelium were 4 destroyed 1 25% 1 26~50% 1		Moderate	2
Depth of inflammation None 0 Submucosal layer 1 muscular layer 2 Serous layer 3 Transmural 4 Range of inflammation 0 0 %) 1~25 1 26~50 2 51~75 3 76~100 4 1 2/ Crypts damage None 0 1 1/3 crypt of basement was destroyed 1 2/ 2/3 crypt of basement was destroyed 2 0nly intact surface epithelium 3 All crypts and epithelium were 4 destroyed 1 2/5% 1 26~50% 1		Severe massive	3
Submucosal layer 1 muscular layer 2 Serous layer 3 Transmural 4 Range of inflammation 0 0 %) 1~25 1 26~50 2 51~75 3 76~100 4 1/3 crypt of basement was destroyed 1 2/3 crypt of basement was destroyed 1 2/3 crypt of basement was destroyed 1 2/3 crypt of basement was destroyed 1 2/3 crypt of basement was destroyed 1 2/3 crypt of basement was destroyed 1 2/3 crypt of basement was destroyed 1 2/3 crypt of basement was destroyed 2 0nly intact surface epithelium 3 All crypts and epithelium were 4 destroyed 1 Cropts None 0 1 25% 1 26~50% 1		Extremely severe and massive	4
muscular layer 2 Serous layer 3 Transmural 4 Range of inflammation 0 0 (%) 1~25 1 26~50 2 51~75 3 76~100 4 1 1 Crypts damage None 0 1 1/3 crypt of basement was destroyed 1 2/3 1 2/3 crypt of basement was destroyed 1 2/3 1 2/3 crypt of basement was destroyed 1 2/3 1 2/3 All crypts and epithelium were 4 4 4 4 Goblet cells loss None 0 1 -25% 1 26~50% 2	Depth of inflammation	None	0
Serous layer 3 Transmural 4 Range of inflammation 0 0 %) 1~25 1 26~50 2 51~75 3 76~100 4 1 2 Crypts damage None 0 1 1/3 crypt of basement was destroyed 1 2 3 2/3 crypt of basement was destroyed 1 2 3 3 All crypts and epithelium were 4 4 4 4 destroyed 0 1~25% 1 3 1 26~50% 2 51~75 3 3 1		Submucosal layer	1
Transmural 4 Range of inflammation 0 0 %) 0 0 %) 1~25 1 26~50 2 51~75 3 76~100 4 0 0 Crypts damage None 0 1 1/3 crypt of basement was destroyed 1 2/3 crypt of basement was destroyed 2 Only intact surface epithelium 3 3 3 All crypts and epithelium were 4 4 destroyed 0 1~25% 1 Goblet cells loss None 0 1 1~25% 1 2 26~50% 2		muscular layer	2
Range of inflammation 0 0 (%) 1~25 1 1~25 1 26~50 2 51~75 3 76~100 4 Crypts damage None 0 1/3 crypt of basement was destroyed 1 2/3 crypt of basement was destroyed 1 2/3 crypt of basement was destroyed 2 0nly intact surface epithelium 3 All crypts and epithelium were 4 destroyed 4 Coblet cells loss None 0 1~25% 1 26~50% 2		Serous layer	3
*** 1~25 1 26~50 2 51~75 3 76~100 4 4 Crypts damage None 0 1/3 crypt of basement was destroyed 1 2/3 crypt of basement was destroyed 2 Only intact surface epithelium 3 All crypts and epithelium were 4 destroyed 0 1~25% 1 26~50% 2		Transmural	4
1~25 1 26~50 2 51~75 3 76~100 4 Crypts damage None 1/3 crypt of basement was destroyed 1 2/3 crypt of basement was destroyed 2 Only intact surface epithelium 3 All crypts and epithelium were 4 destroyed 1 Coblet cells loss None 0 1~25% 1 26~50% 2	Range of inflammation	0	0
26~50 2 51~75 3 76~100 4 Crypts damage None 1/3 crypt of basement was destroyed 1 2/3 crypt of basement was destroyed 2 Only intact surface epithelium 3 All crypts and epithelium were 4 destroyed 1 Soblet cells loss None 0 1~25% 1 26~50% 2	(%)		
51~75 3 76~100 4 Crypts damage None 0 1/3 crypt of basement was destroyed 1 2/3 crypt of basement was destroyed 2 2/3 crypt of basement was destroyed 2 0nly intact surface epithelium 3 All crypts and epithelium were 4 4 destroyed 1 4 Coblet cells loss None 0 1~25% 1 26~50% 2		1~25	1
76~100 4 Crypts damage None 0 1/3 crypt of basement was destroyed 1 2/3 crypt of basement was destroyed 2 Only intact surface epithelium 3 All crypts and epithelium were 4 destroyed 0 1~25% 1 26~50% 2		26~50	2
Crypts damageNone01/3 crypt of basement was destroyed12/3 crypt of basement was destroyed2Only intact surface epithelium3All crypts and epithelium were4destroyed01~25%126~50%2		51~75	3
1/3 crypt of basement was destroyed 1 2/3 crypt of basement was destroyed 2 Only intact surface epithelium 3 All crypts and epithelium were 4 destroyed 0 Goblet cells loss None 0 1~25% 1 26~50% 2		76~100	4
2/3 crypt of basement was destroyed2Only intact surface epithelium3All crypts and epithelium were4destroyed01~25%126~50%2	Crypts damage	None	0
Only intact surface epithelium3All crypts and epithelium were4destroyed0I1~25%126~50%2		1/3 crypt of basement was destroyed	1
All crypts and epithelium were4destroyed0Goblet cells lossNone01~25%126~50%2		2/3 crypt of basement was destroyed	2
destroyed 0 Goblet cells loss None 0 1~25% 1 26~50% 2		Only intact surface epithelium	3
Goblet cells loss None 0 1~25% 1 26~50% 2		All crypts and epithelium were	4
1~25% 1 26~50% 2		destroyed	
26~50% 2	Goblet cells loss	None	0
		1~25%	1
51~75% 3		26~50%	2
		51~75%	3

	75~100%	4
The degree of	None	0
neutrophil infiltration		
	Crypt base infiltration	1
	Muscularis mucosae infiltrate	2
	Muscularis mucosae severity	3
	infiltrate	
	Mucosal thickening and edema	
	Submucosal infiltration	4

Table S2.

Histopathology scoring system of dextran sodium sulfate-induced colitis.