

## Supplemental material

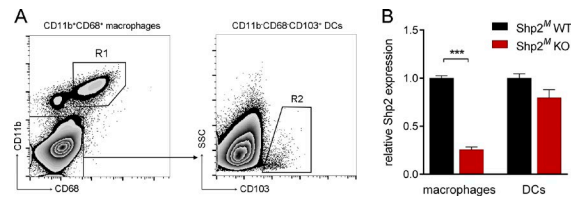
Xiao et al., <https://doi.org/10.1084/jem.20181198>

Figure S1. **Efficiency of Cre-driven Shp2 deletion in colonic macrophages and DCs.** (A and B) Colonic macrophages (CD11b<sup>+</sup>CD68<sup>+</sup>; R1) and DCs (CD11b<sup>+</sup>CD68<sup>+</sup>CD103<sup>+</sup>; R2) were enriched by fluorescence-activated cell sorting (A) and the expression Shp2 was evaluated by qPCR (B). Data are mean  $\pm$  SEM and are compiled from two independent experiments. \*\*\*,  $P < 0.001$ ; two-tailed unpaired Student's  $t$  test.

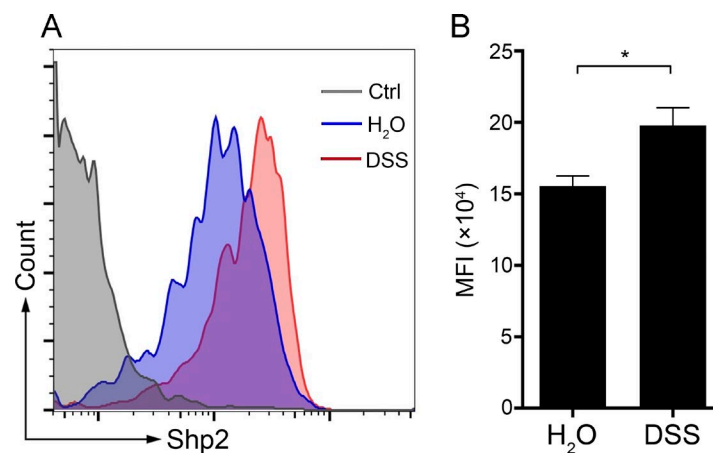
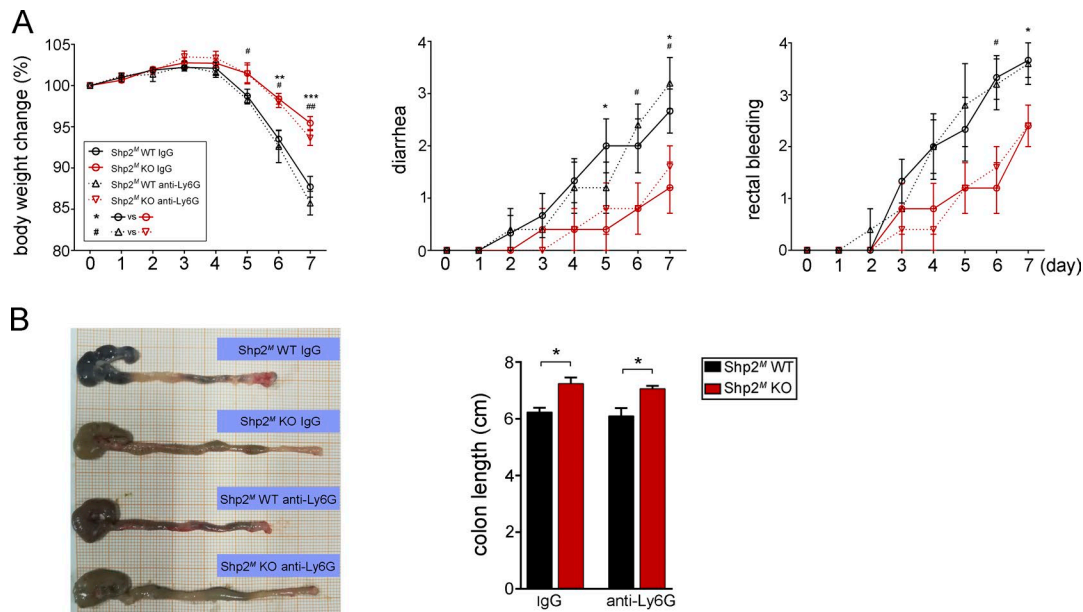
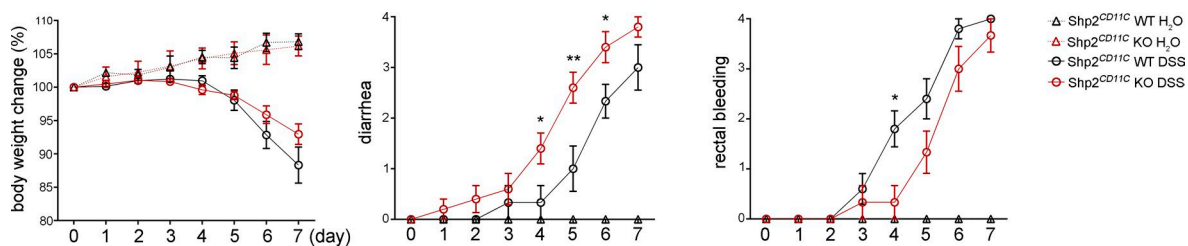


Figure S2. **Expression level of Shp2 in colonic macrophages.** The development of colitis increases Shp2 expression in colonic macrophages. Mice were fed with 2.5% DSS in drinking water for 7 d; the expression of Shp2 in colonic CD68<sup>+</sup> macrophages was evaluated by flow cytometry. (A and B) Representative plot (A) and quantitative analysis are shown (B).  $n = 4-5$ . Data are mean  $\pm$  SEM and are representative of two independent experiments. \*,  $P < 0.05$ ; two-tailed unpaired Student's  $t$  test.



**Figure S3. Development of colitis in neutrophil-depleted mice.** Myeloid Shp2 deficiency alleviates colitis in neutrophil-depleted mice. Mice were injected intraperitoneally with 100  $\mu$ g anti-Ly6G or IgG isotype at days -2, 0, 2, 4, and 6 after DSS challenge, respectively, to deplete neutrophils. **(A)** Body weight change, diarrhea, and rectal bleeding were monitored daily. **(B)** Colon length was measured at day 7.  $n = 5-6$ . Data are mean  $\pm$  SEM and are representative of two independent experiments. \* and #,  $P < 0.05$ ; \*\* and ##,  $P < 0.01$ ; \*\*\*,  $P < 0.001$ ; two-tailed unpaired Student's  $t$  test.



**Figure S4. Severity of colitis between Shp2<sup>CD11c</sup> WT and Shp2<sup>CD11c</sup> KO mice.** Shp2<sup>CD11c</sup> KO mice have decreased colitis susceptibility. Mice were fed with 2.5% DSS for 7 d. Body weight change, diarrhea, and rectal bleeding were monitored daily.  $n = 6-10$ . Data are mean  $\pm$  SEM and are representative of two independent experiments. \*,  $P < 0.05$ ; \*\*,  $P < 0.01$ , two-tailed unpaired Student's  $t$  test.

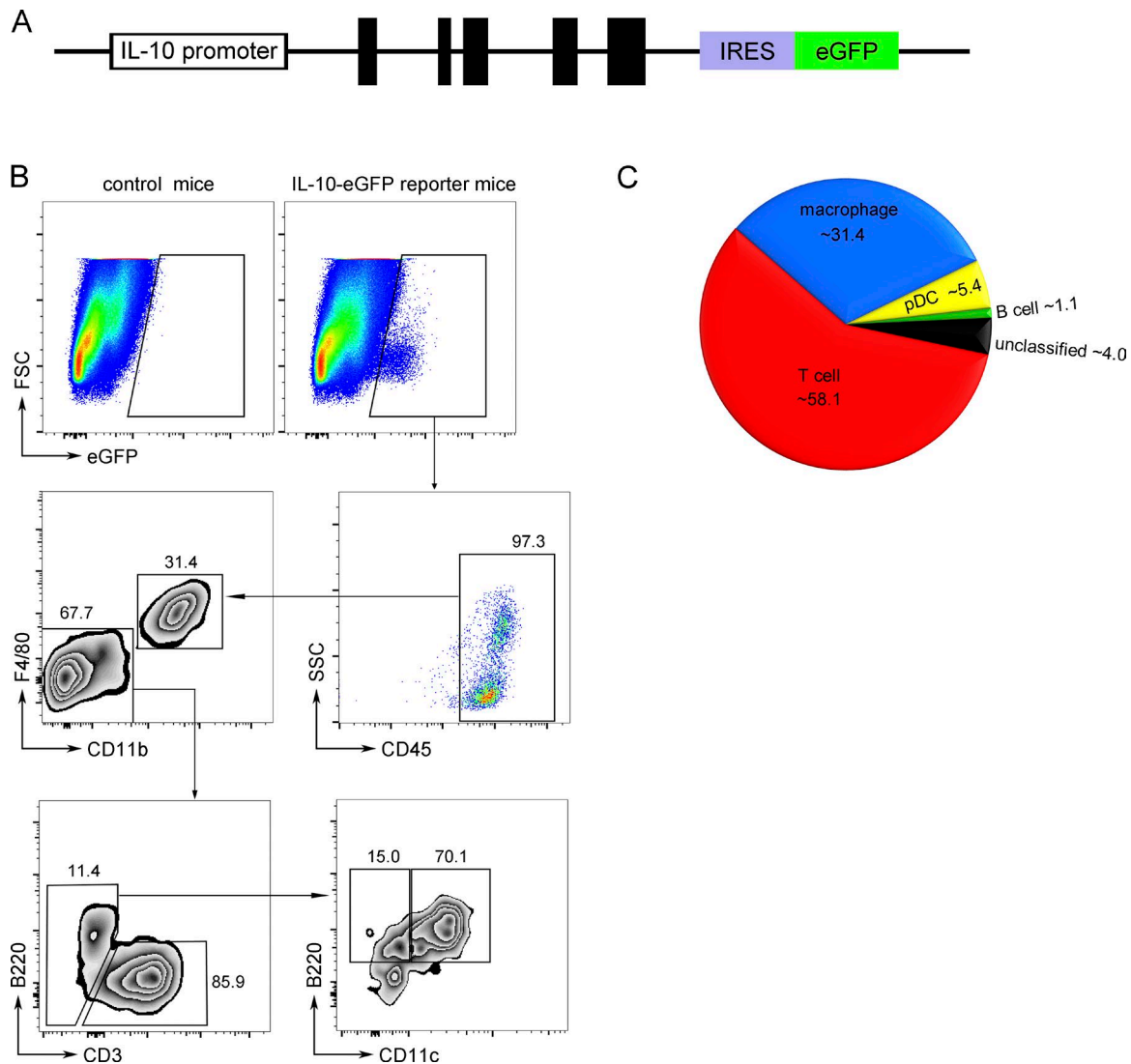


Figure S5. **Cellular sources of colonic IL-10T cells and macrophages are predominant sources of colonic IL-10.** (A) IL-10-GFP mice or control mice were fed with 2.5% DSS; the composition of GFP<sup>+</sup> cells were analyzed by flow cytometry. (B and C) Representative gating strategy (B) and quantitative analysis (C) are shown. Numbers represent cell percentages. IRES, internal ribosome entry site. Data are representative of two independent experiments.

Table S1. **Primers for qPCR analysis**

<b>Gene</b>	<b>Direction</b>	<b>Primer (5'-3')</b>
<i>β-Actin</i>	F (forward):	GGCTGTATTCCTCCATCG
	R (reverse):	CCAGTTGGTAACAATGCCATGT
<i>TNF-α</i>	F:	CCTGTAGCCACGTCGTAG
	R:	GGGAGTAGACAAGGTACAACCC
<i>IL-6</i>	F:	CTGCAAGAGACTTCCATCCAG
	R:	AGTGGTATAGACAGGTCTGTTGG
<i>IL-1β</i>	F:	GAAATGCCACCTTTTGACAGTG
	R:	TGGATGCTCTCATCAGGACAG
<i>IL-12</i>	F:	TGGTTTGCCATCGTTTGCTG
	R:	ACAGGTGAGGTTCACTGTTTCT
<i>IFN-γ</i>	F:	ATGAACGCTACACACTGCATC
	R:	CCATCCTTTGCCAGTTCCTC
<i>IL-23</i>	F:	ATGCTGGATTGCAGAGCAGTA
	R:	ACGGGGCACATTATTTTAGTCT
<i>IL-17A</i>	F:	TTTAACTCCCTTGGCGCAAAA
	R:	CTTCCCTCCGCATTGACAC
<i>IL-17F</i>	F:	TGCTACTGTTGATGTTGGGAC
	R:	AATGCCCTGGTTTGGTTGAA
<i>16S rRNA</i>	F:	GTGGTGCATGGTTGTCGTCA
	R:	ACGTCGTCCCACTTCCTC
<i>Human β-actin</i>	F:	CATGTACGTTGCTATCCAGGC
	R:	CTCCTTAATGTCACGCACGAT
<i>Human TNF-α</i>	F:	CCTCTCTAATCAGCCCTCTG
	R:	GAGGACCTGGGAGTAGATGAG
<i>Human IL-6</i>	F:	ACTCACCTCTTCAGAACGAATTG
	R:	CCATCTTTGGAAGGTTCAAGTTG