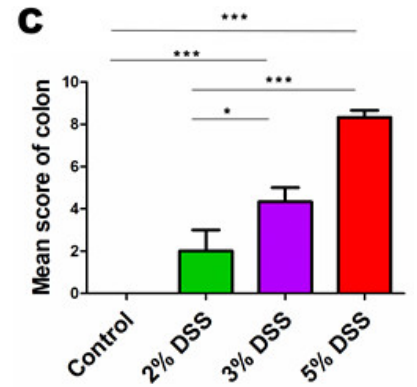
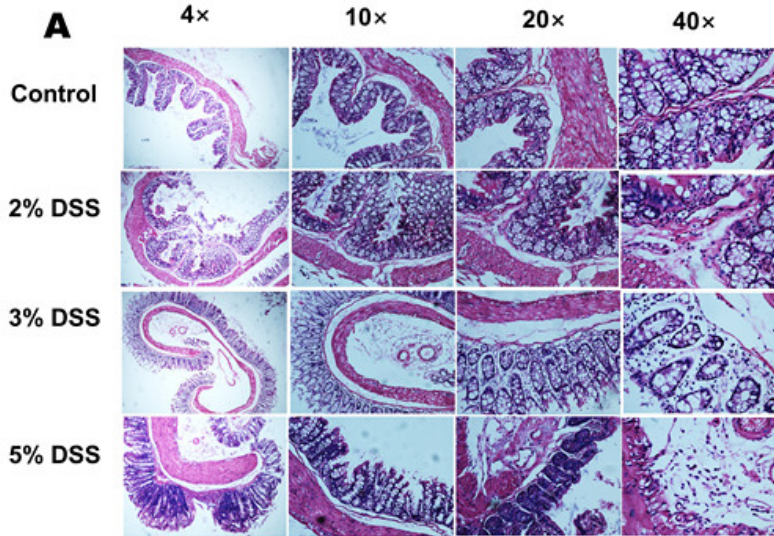


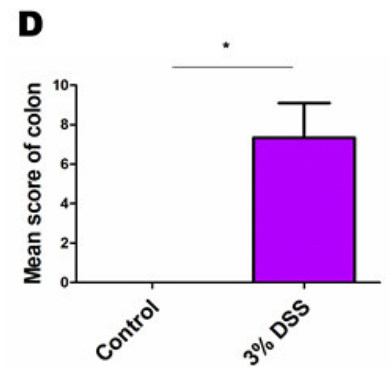
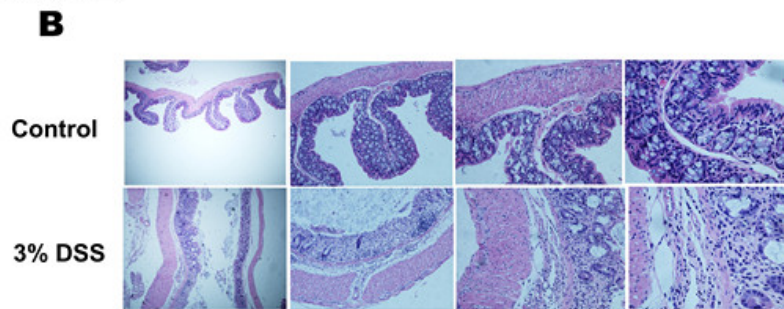
### Supplementary 1. Observation of DSS induced AEC.

(A) Representative schematic of the colons in mice treated by different concentrations of DSS in the cohort 1. (B) Comparison of the colon length changes in mice treated by different concentrations of DSS in the cohort 1. (C) Representative schematic of the colons in mice treated by 3% DSS in the cohort 2. (D) Comparison of the colon length changes in mice treated by 3% DSS in the cohort 2. (E) Comparison of the colon weight changes in mice treated by different concentrations of DSS in the cohort 1. Data were the means  $\pm$  SEM of two experiments.  $*P < 0.05$ ;  $**P < 0.01$ ;  $***P < 0.001$ .

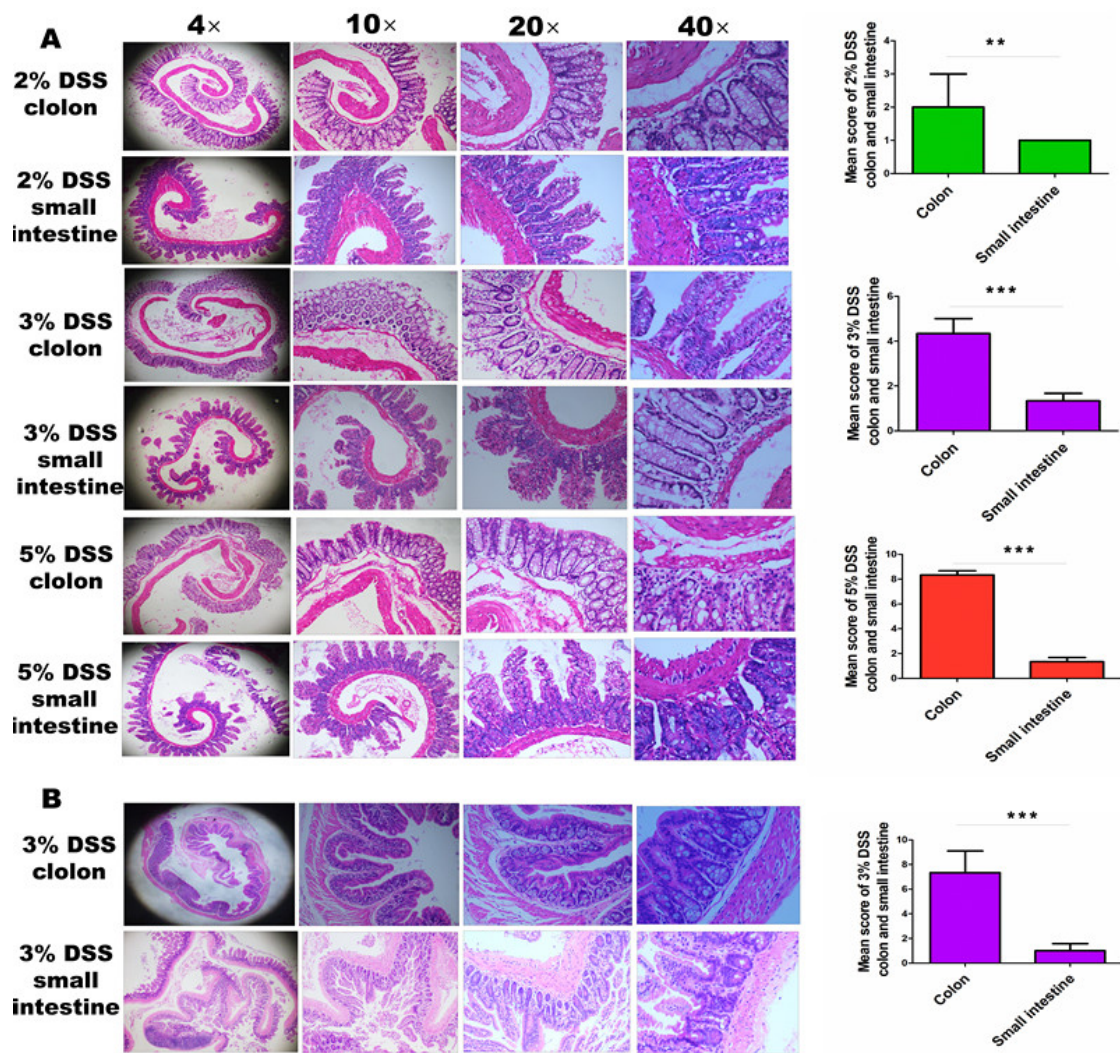
### Cohort 1



### Cohort 2



**Supplementary 2. Histological observation of DSS induced AEC.** (A) Representative schematic of the H&E staining in colon tissues in mice treated by different concentrations of DSS in the cohort 1. (B) Representative schematic of the H&E staining in colon tissues in mice treated by 3% DSS in the cohort 2. (C) Comparison of the histopathological scores of colons in mice treated by different concentrations of DSS in the cohort 1. (D) Comparison of the histopathological scores of colons in mice treated by 3% DSS in the cohort 2. \* $P < 0.05$ ; \*\*\* $P < 0.001$ .



**Supplementary 3.** Comparison of inflammation infiltration between AEC and AEE models. (A) Representative schematic of the H&E staining and histopathological scores of colons and small intestine in mice treated by different concentrations of DSS in the cohort 1. (B) Representative schematic of the H&E staining and histopathological scores of colons and small intestine in mice treated by 3% DSS in the cohort 2. \*\* $P < 0.01$ ; \*\*\* $P < 0.001$ .