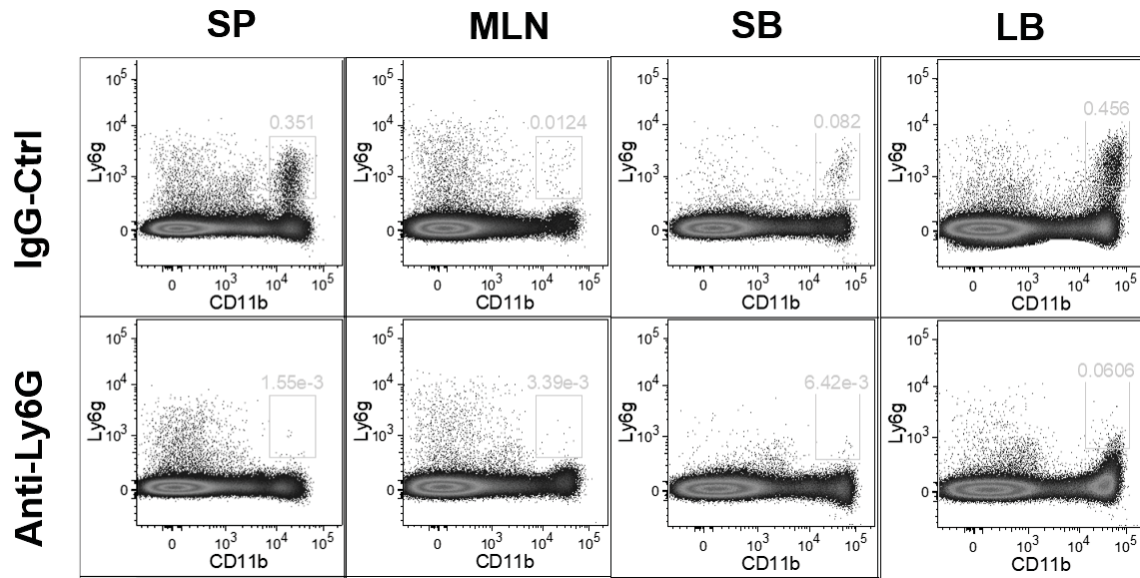**Figure S1. The anti-Ly6g antibody efficiently depleted neutrophils in different tissues.** In DSS-induced colitis model, WT mice received Ly6G-depleting antibody (4 mg/kg) every 3 days. Neutrophil depletion in the spleen, Mesenteric lymph nodes (MLN), small bowel (SB), and large bowel (LB) was measured by flow cytometry. n = 4 per group per experiment. FACS plots are representative of 2 independent experiments.
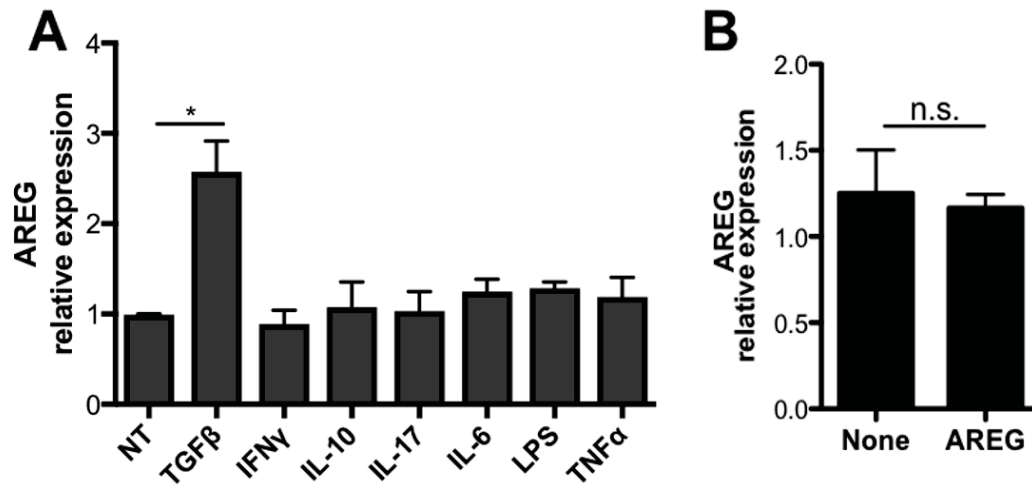
Figure S2. TGFβ induces AREG production in primary IECs. (**A and B**) mRNA expression level of AREG in isolated primary IECs treated with (**A**) different reagents, and (**B**) AREG. The data were normalized to one sample of 3 in nontreatment control group. n.s., no significant difference; Data are presented as mean ± SEM of three independent experiments; ***P < 0.001 one-way ANOVA.
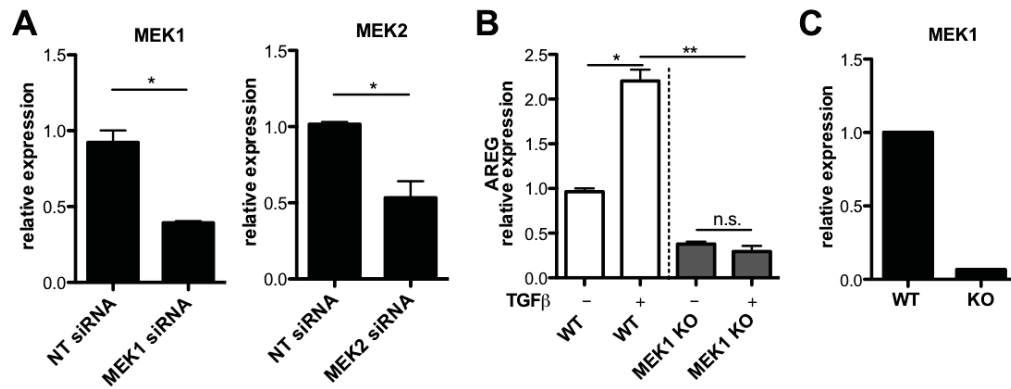
Figure S3. MEK1/2 regulates TGFβ-induced AREG production in IECs. (**A**) Transfection efficiency of siRNA targeted either MEK1 or MEK2 in MSIE cells. (**B and C**) MEK1 was knocked out in MSIE cells by CRISPR, and then treated with TGFβ for 6 h. (**B**) mRNA expression level of AREG in WT and MEK1 KO MSIE cells. (**C**) CRISPR knock out efficiency. n.s., no significant difference; Data are presented as mean ± SEM of three independent experiments. *P < 0.05, **P < 0.01 Student's t test, one-way ANOVA.

Table S1. PCR primers and CRISPR-guide RNA oligo sequences

PCR primers

mGAPDH	Forward	5'-CCATGGAGAAGGCTGGGG-3'
	Reverse	5'-CAAAGTTGTCATGGATGACC-3'
mAREG	Forward	5'-CCTCCTTCTTTCTTCTGTTTCTCC-3'
	Reverse	5'-GTCACTATCTTTGTCTCTGCCA-3'
TGFβ	Forward	5'-TGACGTCACTGGAGTTGTACGG -3'
	Reverse	5'-GGTTCATGTCATGGATGGTGC-3'
HNF4α	Forward	5'-TGTTCTTGCATCAGGTGAGG-3'
	Reverse	5'-TCCAGTTCATCAAGCTCTTCG-3'
hGAPDH	Forward	5'-GAAGGTCGGAGTCAACGGATT-3'
	Reverse	5'-CGCTCCTGGAAGATGGTAAT-3'
hAREG	Forward	5'-CGAACCACAAATACCTGGCTA-3'
	Reverse	5'-TCCATTTTTGCCTCCCTTTT-3'

CRISPR-guide RNA oligo sequences

MEK1	Forward	5'-CACCGCTTGTGCTTCTCCCGAAGAT-3'
	Reverse	5'-AAACATCTTCGGGAGAAGCACAAGC-3'