

**Supplementary Figure 1** The concentration of TNF- $\alpha$  and TGF- $\beta$  in cultured supernatant of macrophages stimulated with oxLDL. Peritoneal macrophages of C57BL/6 and Pdcd4<sup>-/-</sup> mice were collected, cultured in vitro and stimulated with oxLDL (50µg/mL) for the indicated time points. The concentration of TNF- $\alpha$  (**a**) and TGF- $\beta$  (**b**) in cultured supernatant in C57BL/6 and Pdcd4<sup>-/-</sup> macrophages was detected by ELISA.



**Supplementary Figure 2** The genotype of Pdcd4 deficiency mice. The genomic DNA as template was extracted from a small piece of tail from  $Pdcd4^{+/+}Apoe^{-/-}$  and  $Pdcd4^{-/-}Apoe^{-/-}$  mice aged 8 weeks old. The genotype of Pdcd4 was identified by PCR using specific primers for Pdcd4-WT and Pdcd4-KO.



**Supplementary Figure 3** Pdcd4<sup>+/+</sup>Apoe<sup>-/-</sup> and Pdcd4<sup>-/-</sup>Apoe<sup>-/-</sup> mice were fed a high-fat diet from the age of 8 weeks to 16 weeks. Splenocytes were stimulated with anti-CD3 monoclonal antibody ( $5\mu g/mL$ ) in vitro for 3 days. The concentrations of IL-2, IL-4, IL-6, IFN- $\gamma$ , TNF- $\alpha$ , IL-17 and IL-10 in cultured supernatant were detected by BD CBA Mouse Th1/Th2/Th17 Cytokine Kit. (**a-f**) The concentrations of IL-2 (a), IL-4 (b), IL-6 (c), IFN- $\gamma$  (d), TNF- $\alpha$  (e) and IL-10 (f) between two genotype mice were analyzed by unpaired *t* test.



**Supplementary Figure 4** The expression of Pdcd4 during the development of lesions in Apoe<sup>-/-</sup> mice. Protein was extracted from aortic arch and thoracic-abdominal aorta at 8 and 16 weeks old, respectively, and used for detection of the Pdcd4 expression by western blot.



**Supplementary Figure 5** Peritoneal macrophages of Pdcd4<sup>+/+</sup>Apoe<sup>-/-</sup> and Pdcd4<sup>-/-</sup>Apoe<sup>-/-</sup> mice were collected, cultured in vitro and stimulated with oxLDL (50µg/mL) for 12h, 24h and 48h. The phosphorylated activation of STAT-3 and SOCS3 in macrophages were detected by Western blotting.



Supplementary Figure 6 Detection of IL-10 mRNA stability. WT and Pdcd4<sup>-/-</sup> peritoneal macrophages were treated with actinomycin D (10  $\mu$ g/ml) for various times (Omin, 20min, 40min) and IL-10 mRNA levels were analyzed by qPCR and normalized to 18S in absence or in presence of inhibitor of ERK (SB203580) and of P38 (PD98059) (20  $\mu$ M).