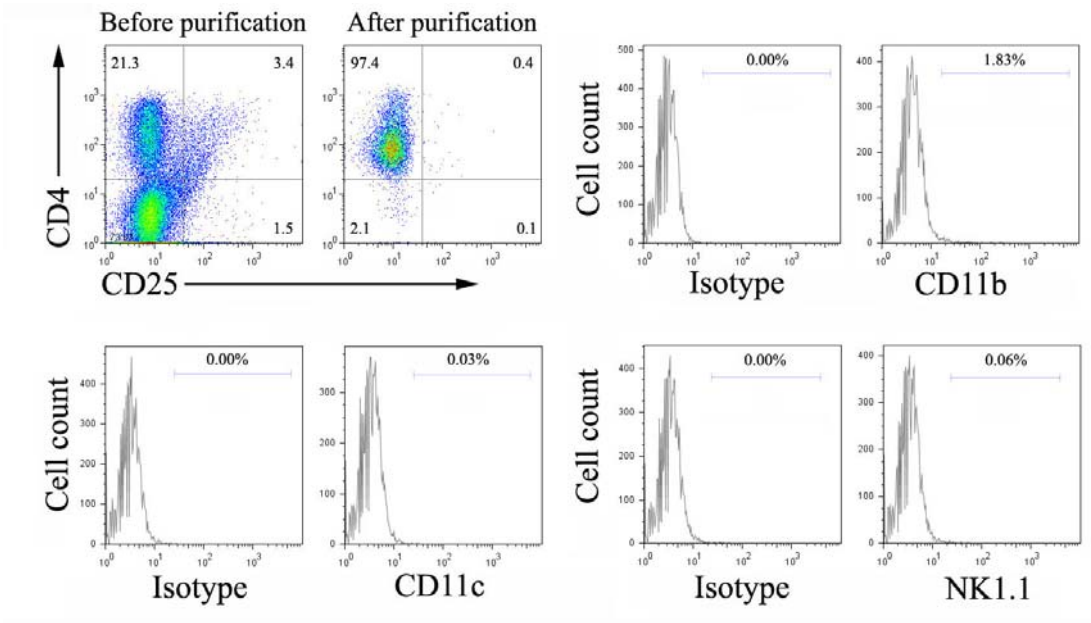
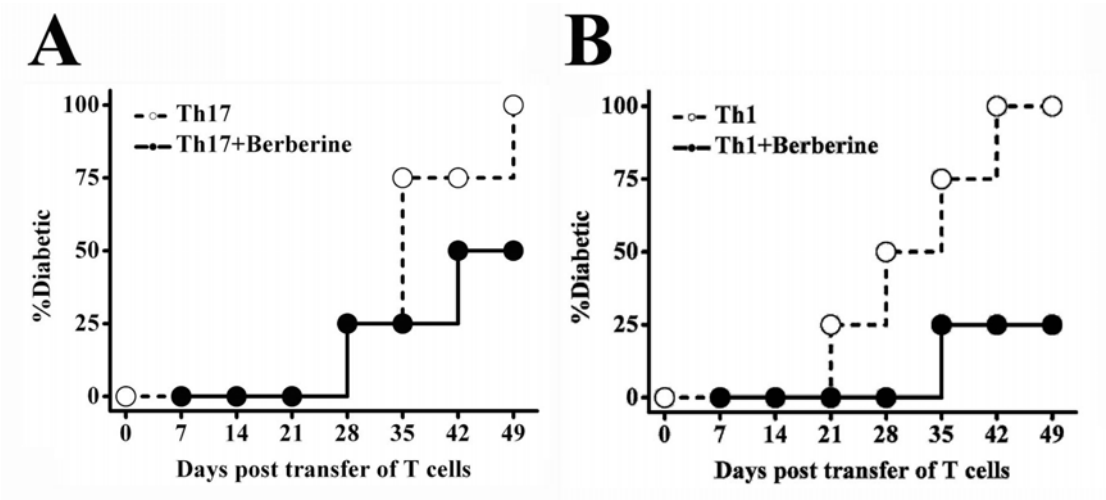


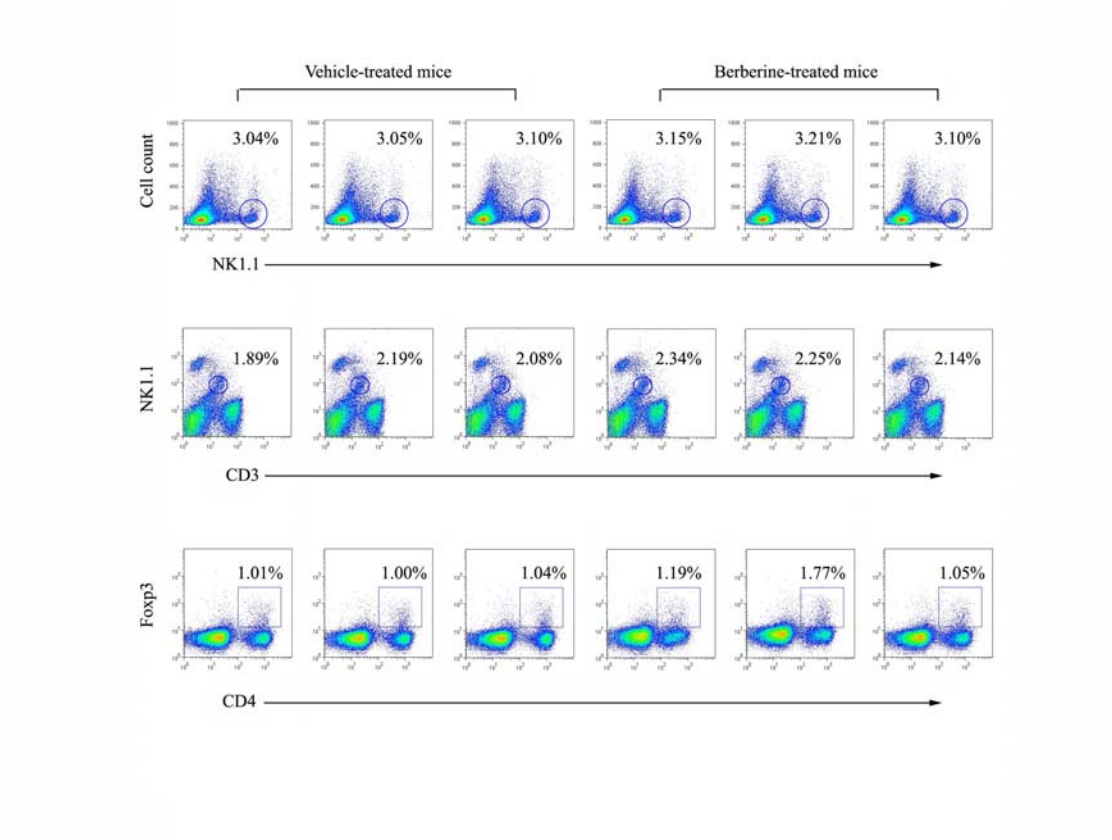
<u>Supplementary Figure 1.</u> Purity of column-purified CD4+CD25- T cells.

CD4+CD25- T cell percentage before and after purification with a T cell isolation kit from Miltenyi Biotec. Purified cells were stained with fluochrome-conjugated antibodies against CD11b, CD11c and NK1.1 to analyze the contaminated subsets. According to the cell staining results, CD11b+ cells were the major contaminants (1.83%). (B) Purified CD4+CD25- T cell were cultured under Th1 or Th17 condition in the presence or absence of berberine (5μM) for 4 days and stained with fluochrome-conjugated antibodies against CD11b, CD80 and CD86. Staining with specific antibody to CD80 or CD86 was indicated by open contour and gray contour represents isotype control.

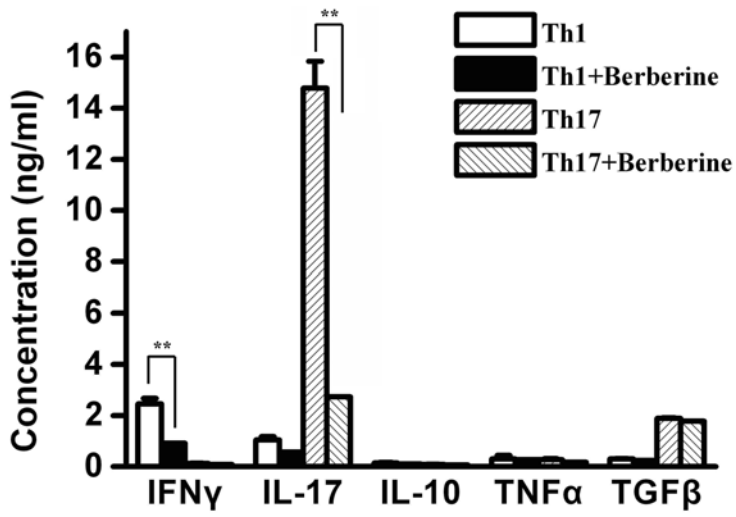


Supplementary Figure 2. Berberine decreased the ability of inflammatory T cells to transfer diabetes.

1.2×10^7 Naïve CD4+ T cells were differentiated into Th17 (A) or Th1 (B) in the absence or presence of berberine (5 μM) and adoptively transferred into 4 NOD.*scid* mice by i.v. injection. Non-fasting blood glucose was measured weekly for 49 days and it was considered diabetic when the blood glucose was higher than 250 mg/dL .



<u>Supplementary Figure 3.</u> Berberine did not affect NK, NKT or Treg subsets.
Splenocytes from vehicle or berberine-treated NOD mice were stained for NK1.1 alone (upper panel), NK1.1 plus CD3 (medium panel) and Foxp3 plus CD4 (lower panel) (Three mice per group).



<u>Supplementary Figure 4.</u> Cytokine profile of Th1 and Th17 cell culture in the presence of berberine.

Purified CD4+CD25- T cell were cultured under Th1 or Th17 condition for 4 days in the presence or absence of berberine (5μM) for 4 days and supernatant was collected for cytokine assay by ELISA (**, $p<0.01$).