

**Fig. S1. Peripheral phenotypes of CD4+ T cells**. Blood samples were collected from healthy subjects (n=20) and UC patients (n=20). Peripheral blood mononuclear cells (PBMC) were prepared from the samples and analyzed by flow cytometry. A, the gated dot plots indicate the frequency of CD3+ CD4+ T cell fraction in PBMC. B, the gated histograms indicate the frequency of the fractions of CD4+ T cells gated in panel A.



**Figure S2. Expression of survivin in colon tissue**. Colon biopsies were obtained from 6 UC patients and 6 CD patients. Total proteins and RNA were extracted from the samples and analyzed by RT-qPCR and Western blotting. A, the levels of survivin mRNA in the colon tissue. B, the levels of survivin protein in the colon tissue. Data of panel A are presented as mean ± SEM.



**Figure S3. Modulating survivin in CD4+ T cells**. CD4+ T cells were isolated from PBMCs of healthy subjects and UC patients. Survivin-expressing plasmids or control plasmids were transfected into healthy CD4+ T cells. UC CD4+ T cells were treated with survivin RNAi or control RNAi. The immunoblots show the results of survivin overexpression in healthy CD4+ T cells (A) and depletion of survivin in UC CD4+ T cells (B).