

Figure S1

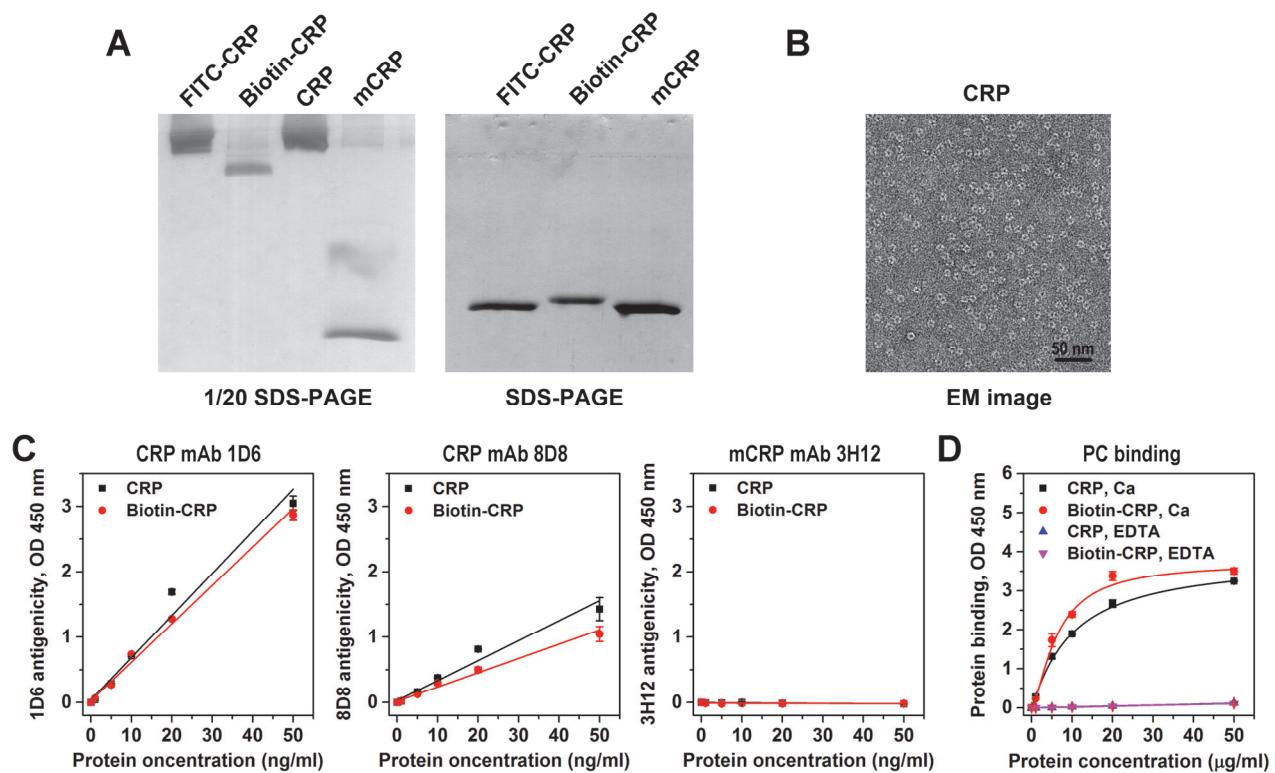


Figure S1. Native structure and normal antigenicity of CRP is preserved after labeling with FITC and biotin. Human CRP, FITC-CRP, and biotin-CRP all migrated in 1/20 SDS-PAGE as large molecular weight pentamers (1) and in regular SDS-PAGE as monomers (A; mCRP denotes monomeric CRP). (B) By electron-microscopy the pentameric structure of CRP was confirmed. (C) In sandwich ELISAs (2) mAbs 1D6 and 8D8 that recognize native CRP (3) also recognized biotin-CRP, whereas mAb 3H12 against a neo-CRP antigen (3) did not. (D) Both CRP and biotin-CRP bound to immobilized PC-BSA in a calcium-dependent manner.

Figure S2

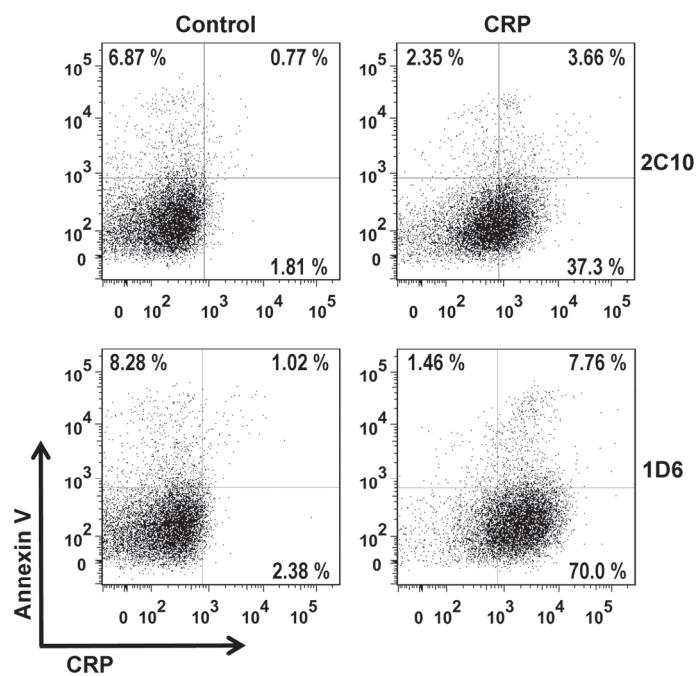


Figure S2. Binding of native CRP to live Jurkat T cells. Based on its detection with mAb 1D6 that recognizes native CRP (3), the majority of human CRP (100 µg/ml) was bound to Annexin V-negative cells (66.4 ± 1.6 % of cells vs. 1.3 ± 0.1 % of control cells not exposed to CRP, $p < 0.001$).

Figure S3

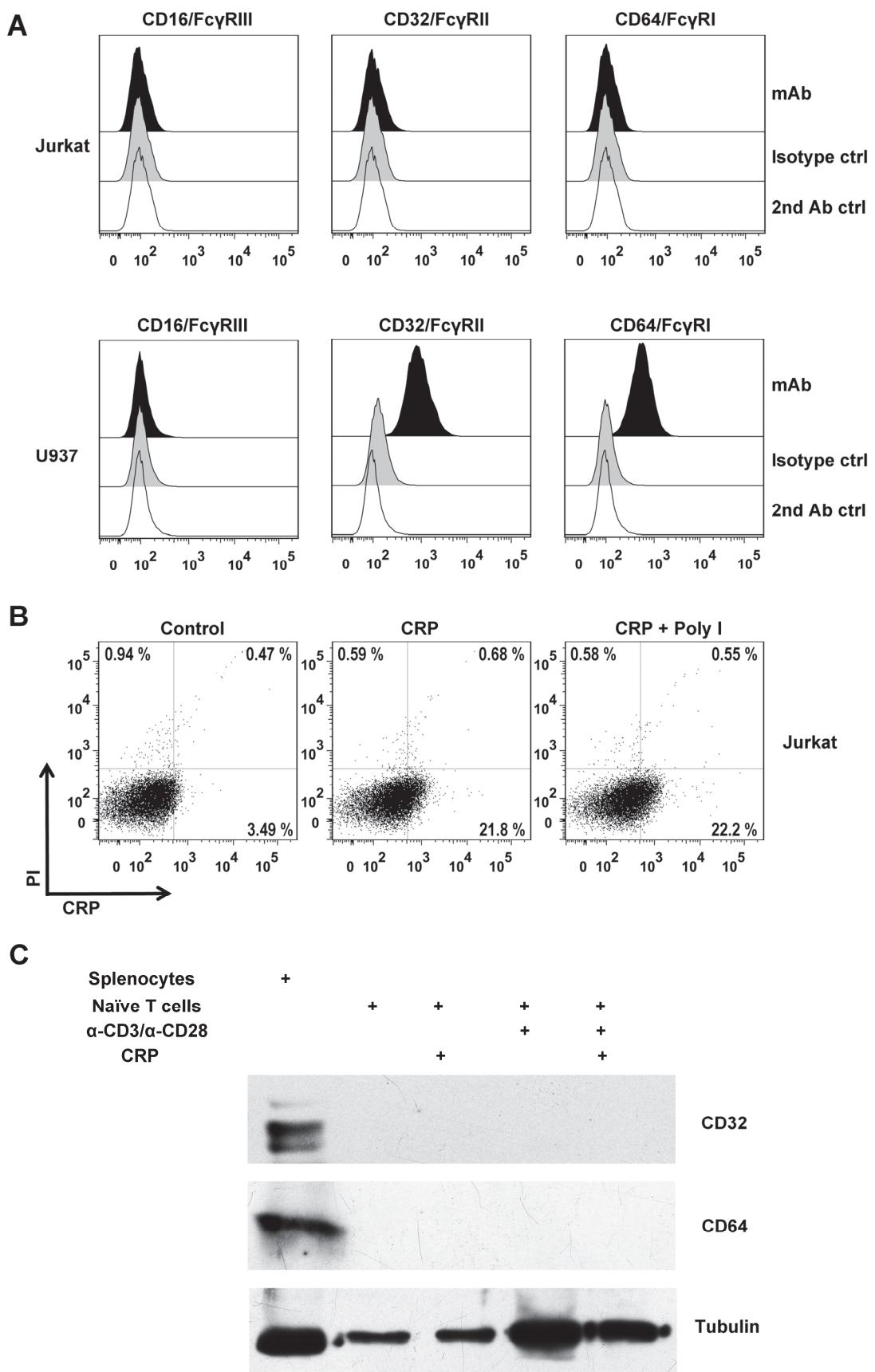


Figure S3. Binding of CRP to human Jurkat and mouse naïve T cells does not require Fc γ Rs nor LOX-1. (A) No expression of CD16 (Fc γ RIII), CD32 (Fc γ RII) and CD64 (Fc γ RI) by Jurkat

(human) T cells could be seen by flow cytometry. In contrast, U937 (human) monocytic cells showed robust expression of CD32 and CD64. (**B**) Polyinosinic acid (Poly I, 100 µg/ml), an inhibitor of LOX-1 (4), is unable to inhibit the binding of human CRP (100 µg/ml) to live Jurkat cells. Of note, the lack of LOX-1 expression on mouse CD3⁺ T cells has also been demonstrated (5). (**C**) Mixed splenocytes or purified mouse naïve T cells were left untreated or activated with anti-CD3/anti-CD28, human CRP, or both for 24 h. Immunoblotting reveals no signal for CD32 and CD64 proteins in naïve T cells.

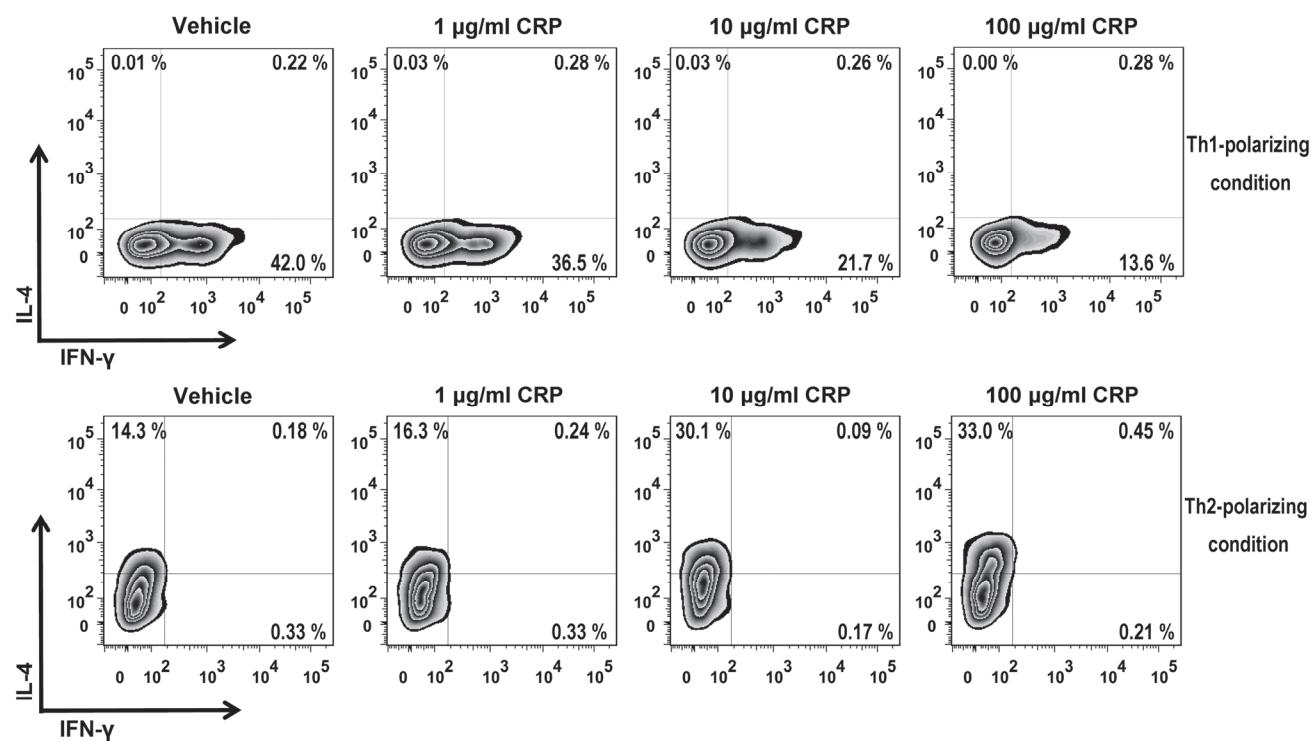
Figure S4

Figure S4. CRP concentration-dependent modulation of Th1/Th2 differentiation. 2×10^5 naïve T cells were cultured for 3 days with anti-CD3/anti-CD28 mAbs under Th1 polarizing conditions (10 ng/ml mIL-2, 20ng/ml mIL-12p70, 10 $\mu\text{g/ml}$ anti-IL-4 mAb) or Th2 polarizing conditions (10 ng/ml mIL-2, 20 ng/ml mIL-4, 10 $\mu\text{g/ml}$ anti-IL12 mAb, 10 $\mu\text{g/ml}$ anti- $\text{IFN-}\gamma$ mAb). Human CRP at the indicated concentrations was added to cells 24 h after the beginning of cell differentiation (late treatment as described for Figure 4).

References

1. Taylor, K. E., and C. W. van den Berg. 2007. Structural and functional comparison of native pentameric, denatured monomeric and biotinylated C-reactive protein. *Immunology* 120: 404-411.
2. Ji, S. R., Y. Wu, L. Zhu, L. A. Potempa, F. L. Sheng, W. Lu, and J. Zhao. 2007. Cell membranes and liposomes dissociate C-reactive protein (CRP) to form a new, biologically active structural intermediate: mCRP(m). *FASEB J* 21: 284-294.
3. Ying, S. C., H. Gewurz, C. M. Kinoshita, L. A. Potempa, and J. N. Siegel. 1989. Identification and partial characterization of multiple native and neoantigenic epitopes of human C-reactive protein by using monoclonal antibodies. *J Immunol* 143: 221-228.
4. Moriwaki, H., N. Kume, T. Sawamura, T. Aoyama, H. Hoshikawa, H. Ochi, E. Nishi, T. Masaki, and T. Kita. 1998. Ligand specificity of LOX-1, a novel endothelial receptor for oxidized low density lipoprotein. *Arterioscler Thromb Vasc Biol* 18: 1541-1547.
5. Li, D., G. Romain, A. L. Flamar, D. Duluc, M. Dullaers, X. H. Li, S. Zurawski, N. Bosquet, A. K. Palucka, R. Le Grand, A. O'Garra, G. Zurawski, J. Banchereau, and S. Oh. 2012. Targeting self- and foreign antigens to dendritic cells via DC-ASGPR generates IL-10-producing suppressive CD4+ T cells. *J Exp Med* 209: 109-121.