Supplemental Figures (Figure S).

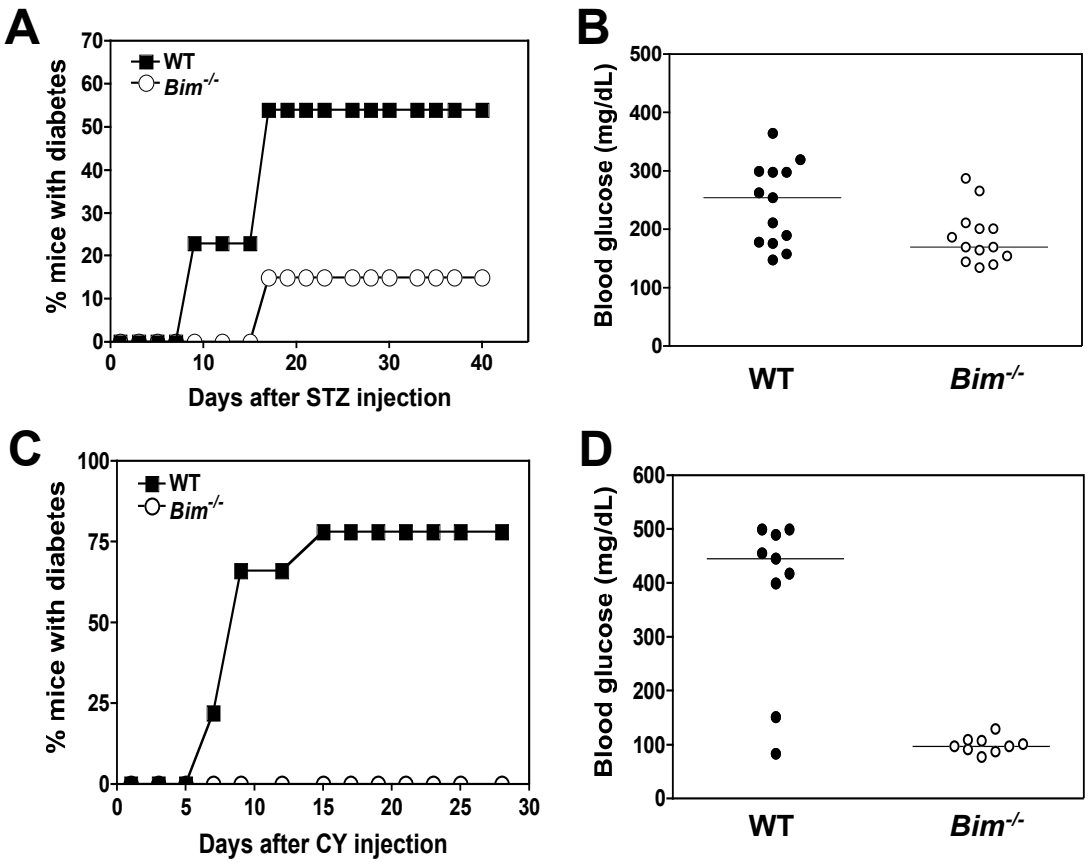

Figure S1. Resistance of *Bim*$^{-/-}$ B6 and NOD.B6 mice to type 1 diabetes. Five-to-six week old B6 (**A-B**) (n=13) and NOD.B6 mice (**C-D**) (n=9) were injected with low-dose STZ and CY, respectively, as described in Methods. The accumulated diabetes incidences (A and C) and blood glucose leves at 4 weeks (B and D) are shown. Results are compiled from two separate experiments. The differences between WT and *Bim*$^{-/-}$ mice are statistically significant for all panels ($p<0.001$).

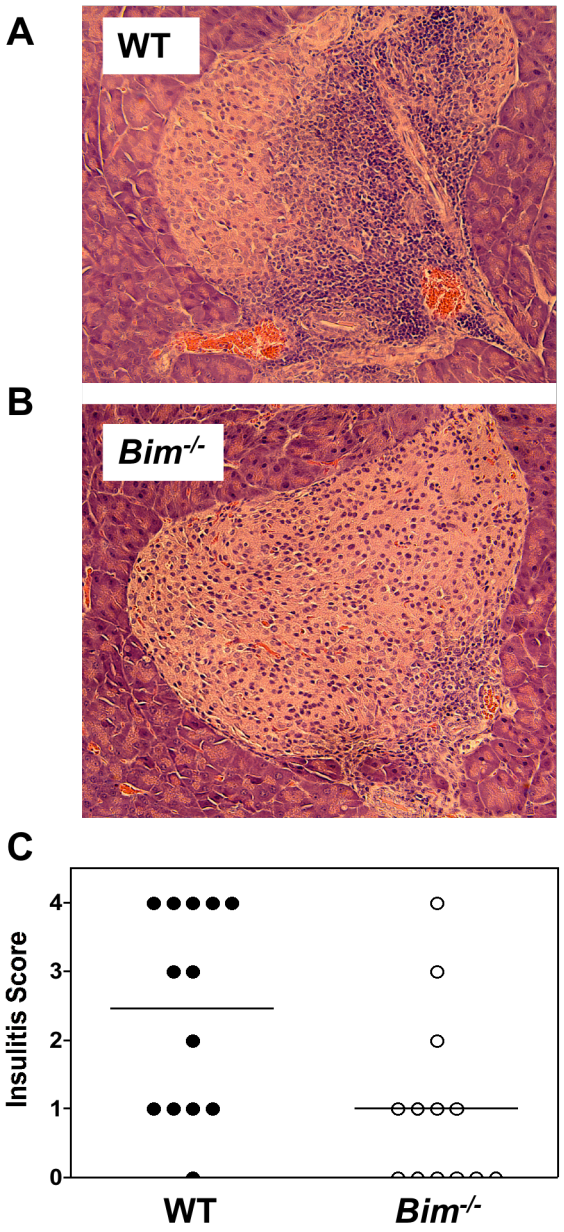

Figure S2. Reduced insulitis in *Bim*$^{-/-}$ mice. Mice (n=13) were treated as in Fig. S1A, and sacrificed 40 days after the first STZ injection. Pancreata were sectioned, stained with HE, and scored as described in Methods. Results are compiled from two separate experiments. The difference in insulitis score between WT and *Bim*$^{-/-}$ mice is statistically significant ($p<0.02$).

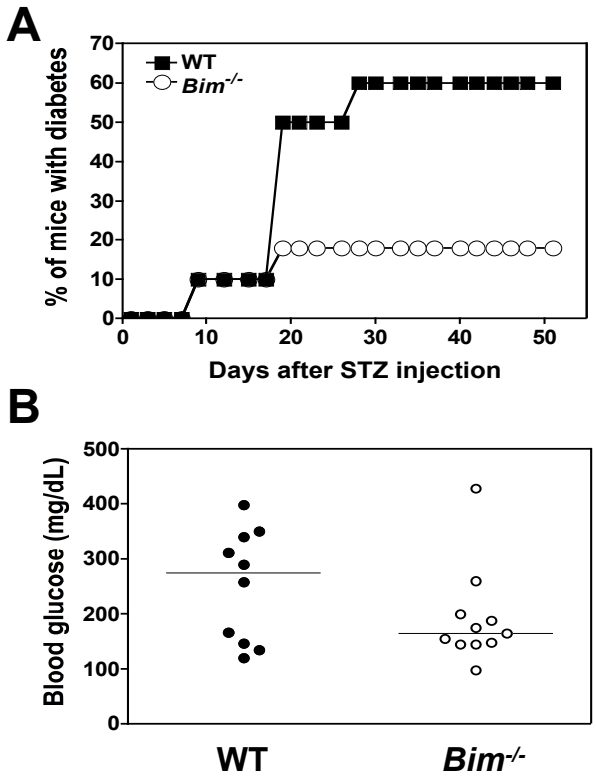

Figure S3. Reduced diabetogenic activity of *Bim*$^{-/-}$ T cells. *Rag1*$^{-/-}$ B6 mice that do not have lymphoid cells were injected with WT (n=10) or *Bim*$^{-/-}$ T cells (n=11) as described in Methods. They were then treated with a low dose STZ to induce diabetes. The accumulated diabetes incidences (A) and blood glucose leves at 4 weeks (B) are shown. Results are compiled from two separate experiments. The differences between WT and *Bim*$^{-/-}$ mice are statistically significant for both panels ($p<0.01$).

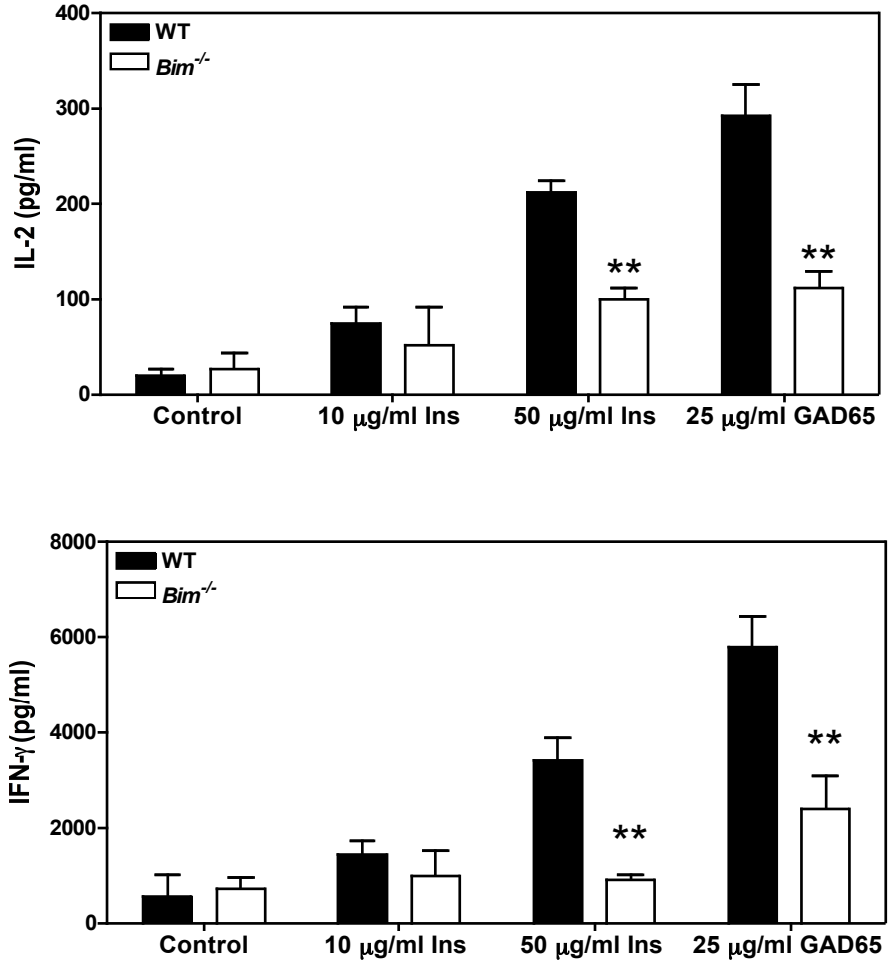

Figure S4. Reduced responses of *Bim*$^{-/-}$ NOD T cells to pancreatic antigens. Splenocytes of NOD.B6 mice (n=6) were cutured with or without insulin (ins) and GAD65 as indicated. Culture supernatants were collected 40 hrs later, and cytokine levels were determined by ELISA. Data are representative of two experiments. *$p<0.01$.

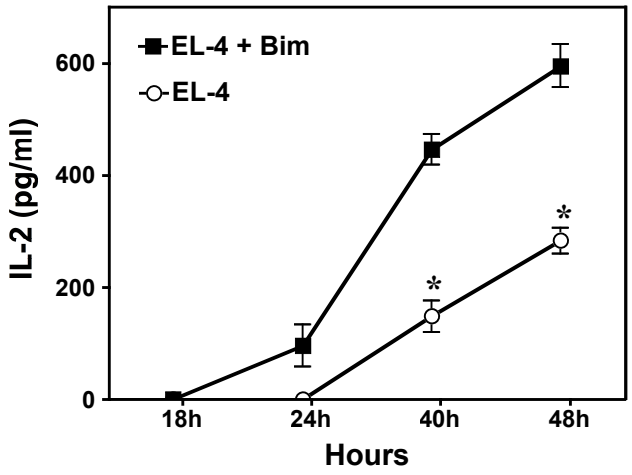

Figure S5. *Bim* gene transfer in EL-4 T cells enhances IL-2 production. A recombinant Bim retrovirus was generated by inserting the murine Bim cDNA into the BglII site of the MigR1 vector and by transfecting 293T cells with the recombinant MigR1 plasmid (1-3). EL-4 T cells were infected with either the Bim retrovirus (EL-4 + Bim) or a control retrovirus that carries no Bim cDNA (EL-4). Two days later, cells were stimulated with anti-CD3 and anti-CD28 as described in Figure 3, and IL-2 concentrations in the supernatants were determined by ELISA at the indicated times. *, $p<0.01$.

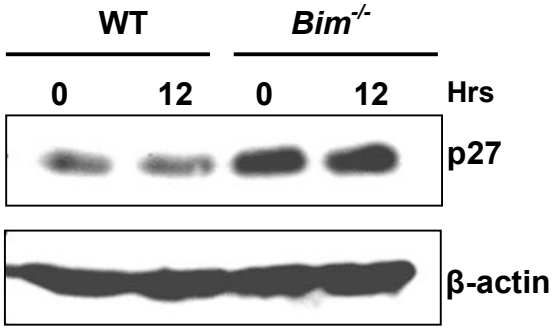

Figure S6. *Bim*$^{-/-}$ T cells have elevated levels of p27. T cells were prepared and stimulated with anti-CD3 and anti-CD28 as described in Figure 3. Whole cell lysates were prepared at the indicated times, fractionated by SDS-PAGE, and blotted with antibodies to p27 and β-actin.

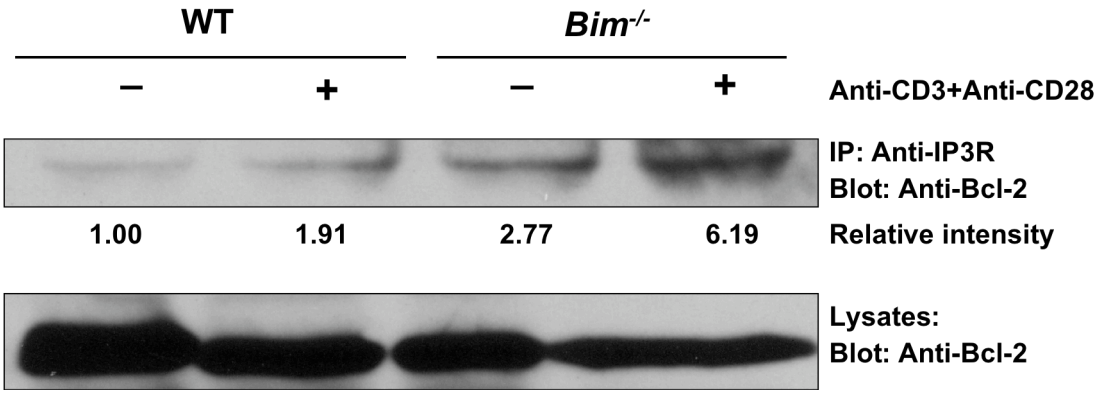

Figure S7. Increased IP3R–Bcl-2 association in *Bim*$^{-/-}$ T cells. WT and *Bim*$^{-/-}$ T cells were cultured with (+) or without (-) anti-CD3 and anti-CD28 as described in Figure 3. After 30 minutes, cells were collected and lysed in NP-40 lysis buffer. Co-immunoprecipitation was performed using anti-IP_3R. The resultant IP products (upper panel) and the whole cell lysates (lower panel) were fractionated by SDS-PAGE, and blotted with anti-Bcl-2. The numbers below the upper panel denote the relative intensities of the immunoprecipitated Bcl-2 normalized against the input Bcl-2 shown in the lower panel.

Supplemental References

1. Sun, H., Gong, S., Carmody, R.J., Hilliard, A., Li, L., Sun, J., Kong, L., Xu, L., Hilliard, B., Hu, S., et al. 2008. TIPE2, a negative regulator of innate and adaptive immunity that maintains immune homeostasis. *Cell* 133:415-426.
2. Pear, W.S., Miller, J.P., Xu, L., Pui, J.C., Soffer, B., Quackenbush, R.C., Pendergast, A.M., Bronson, R., Aster, J.C., Scott, M.L., et al. 1998. Efficient and rapid induction of a chronic myelogenous leukemia-like myeloproliferative disease in mice receiving P210 bcr/abl-transduced bone marrow. *Blood* 92:3780-3792.
3. Pui, J.C., Allman, D., Xu, L., DeRocco, S., Karnell, F.G., Bakkour, S., Lee, J.Y., Kadesch, T., Hardy, R.R., Aster, J.C., et al. 1999. Notch1 expression in early lymphopoiesis influences B versus T lineage determination. *Immunity* 11:299-308.