

Supplemental Figures

Figure S1

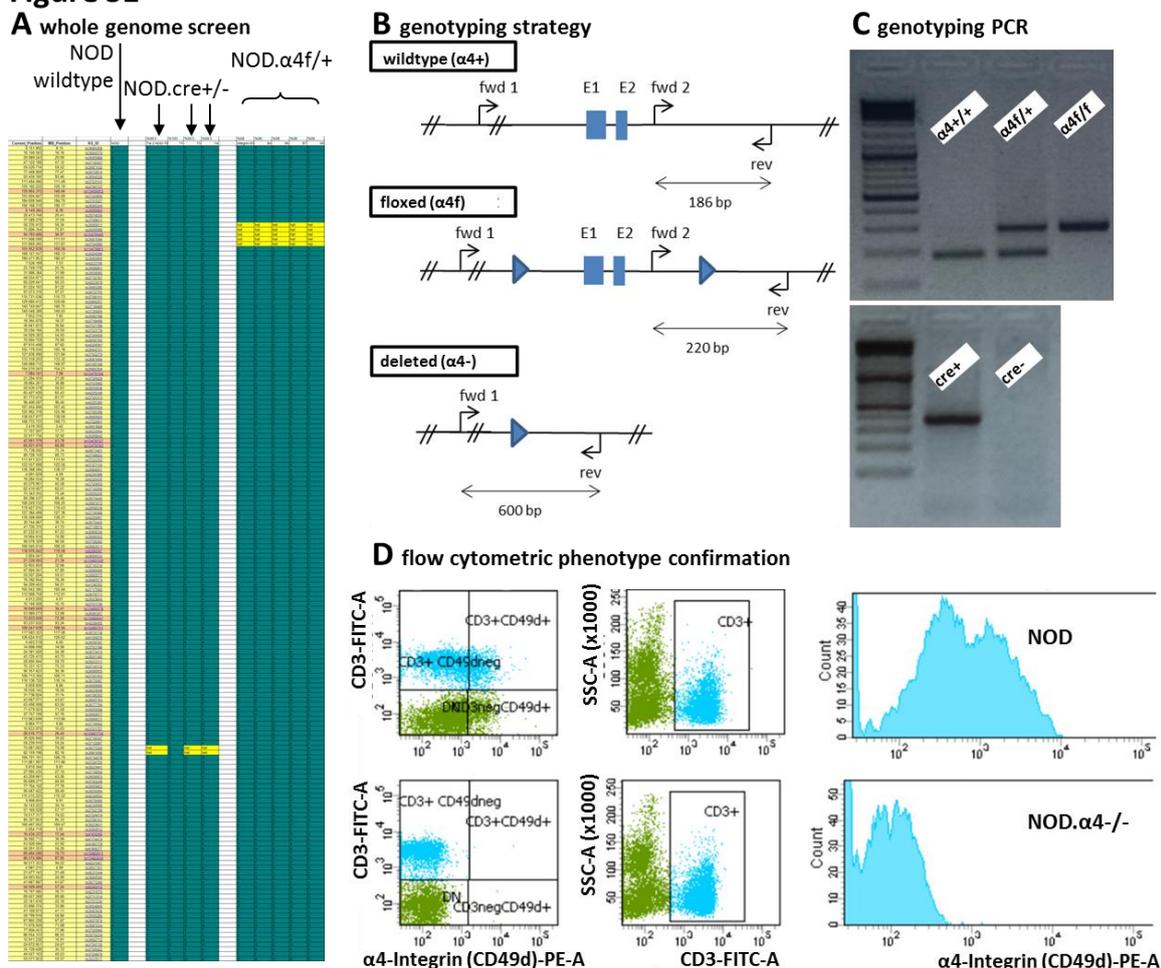


Figure S1. Generation of NOD.alpha4^{-/-} mice

The previously described $\alpha4f/f$ and $Tie2cre$ mice were separately bred to the NOD background. Pure NOD background except for a single copy of $Tie2cre$ or the $\alpha4f$ allele was confirmed by whole-genome screen (A); mice were then crossed to generate ablators. The genotyping strategy, allowing distinction of the WT, targeted (f) and deleted (-) alleles, is shown in (B), typical genotyping results in (C). $\alpha4$ -deletion in the hematopoietic lineage in mice genotyped as $\alpha4f/fcre+$ was confirmed by flow cytometry of peripheral blood leukocytes. Shown are representative results for a NOD.alpha4⁺ and a NOD.alpha4^{-/-} (D).

Figure S2

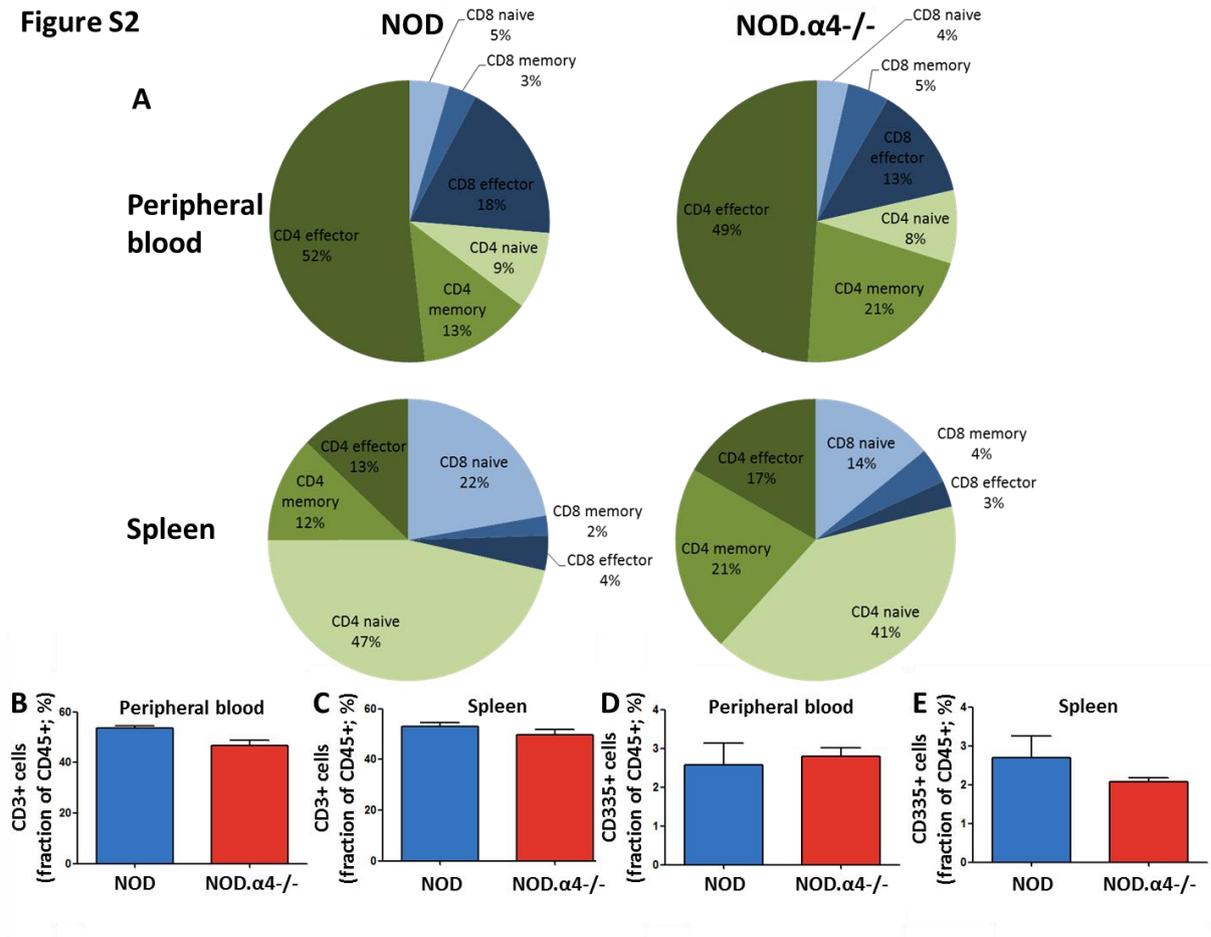


Figure S2. T- and NK-cells in NOD and NOD. $\alpha4^{-/-}$ mice

Phenotypic T-cell subtype distribution was grossly similar in blood and spleen of NOD and NOD. $\alpha4^{-/-}$ mice (A), as were total T-cell (B, C) and NK-cell (D, E) frequencies in blood (B, D) and spleen (C, E) (mean (A) or mean \pm SEM (B-E); n=4-5 per group). In (A), blue and green represent CD4+ and CD8+ T-cells, respectively, light to dark shading depicts naive, memory and effector cells, respectively.

Figure S3

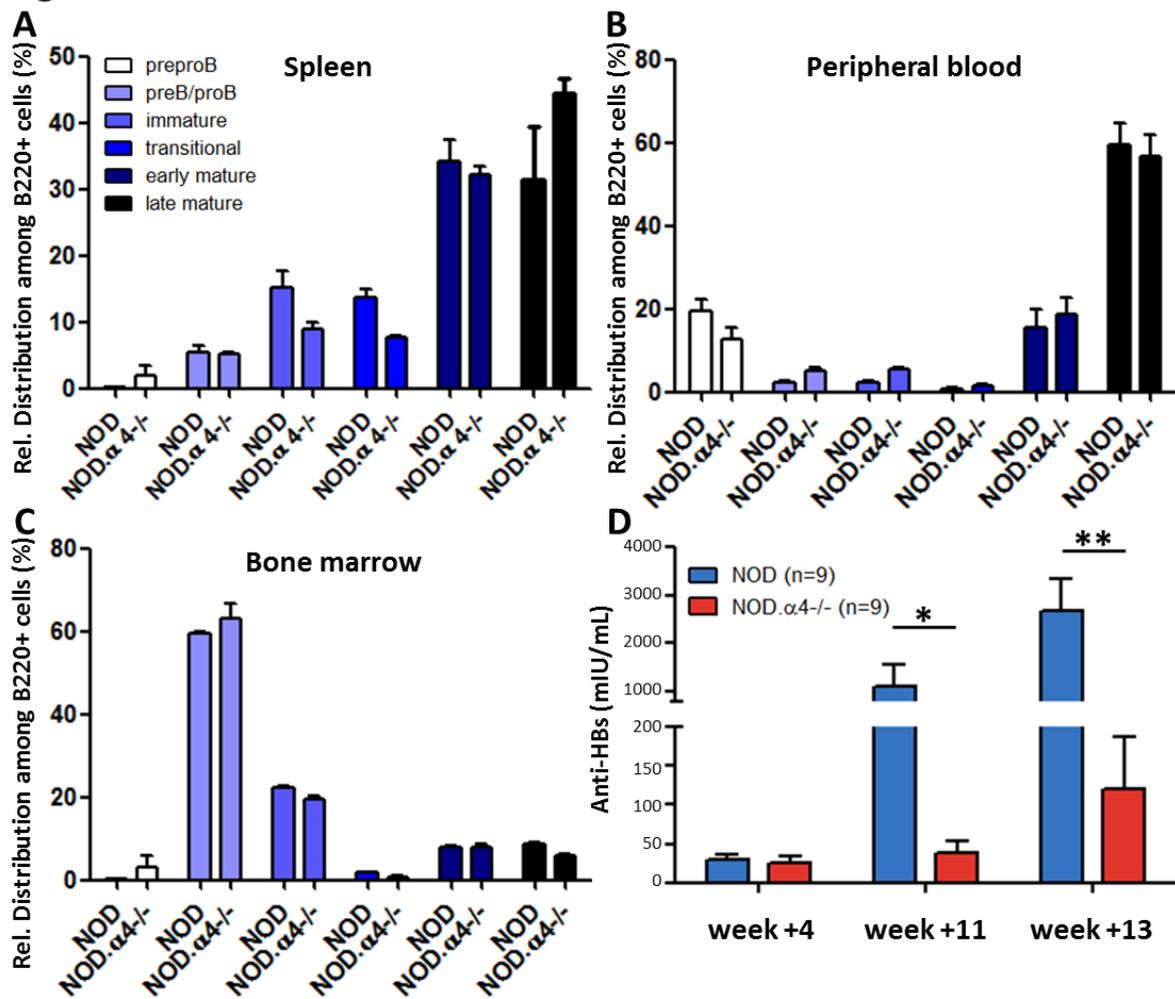


Figure S3. B-cell maturation and function

B-cells in spleen (A), blood (B) and bone marrow (C), were analyzed phenotypically; no significant differences were observed (mean±SEM; n=4-5 per group). Immunization of NOD or NOD.α4-/- mice with rHBs vaccine (weekly weeks 0-3, boost week 12) induced immediate and long-term humoral responses, as well as they were boostable, although quantitatively NOD.α4-/- mice responded much less strongly at the later time points (D) (mean±SEM; n=9 per group; p<0.05 at 11 weeks, p<0.01 at 13 weeks).

Figure S4

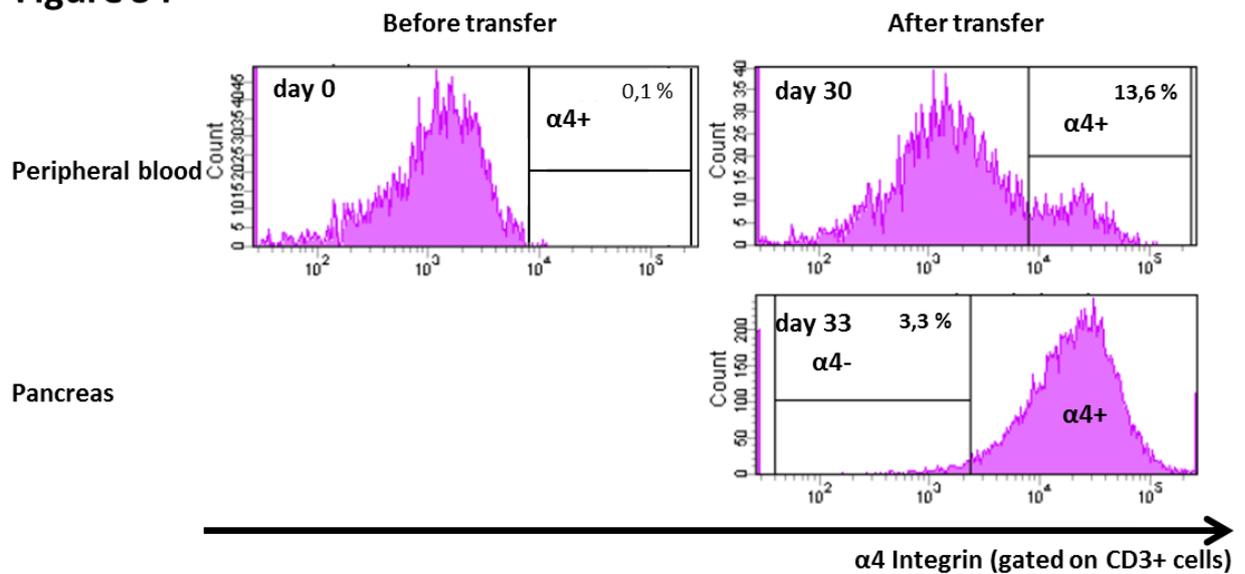


Figure S4. Adoptive transfer of CD3+ T-cells from diabetic NOD donors causes insulinitis but fails to recruit $\alpha 4^-$ T-cells to islets

Transfer of CD3+ splenocytes from diabetic NOD mice into NOD. $\alpha 4^-$ repopulates only 13.6% of the peripheral blood lymphocyte compartment (upper row) while CD3+ cells recovered from pancreas islets are exclusively donor-derived (bottom row). Pooled cells from islets from three animals (one experiment).

