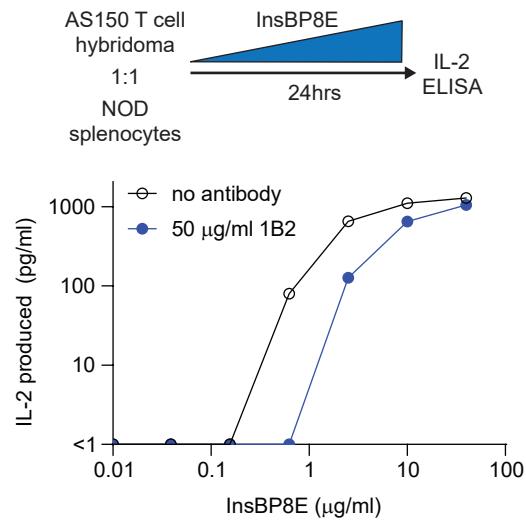
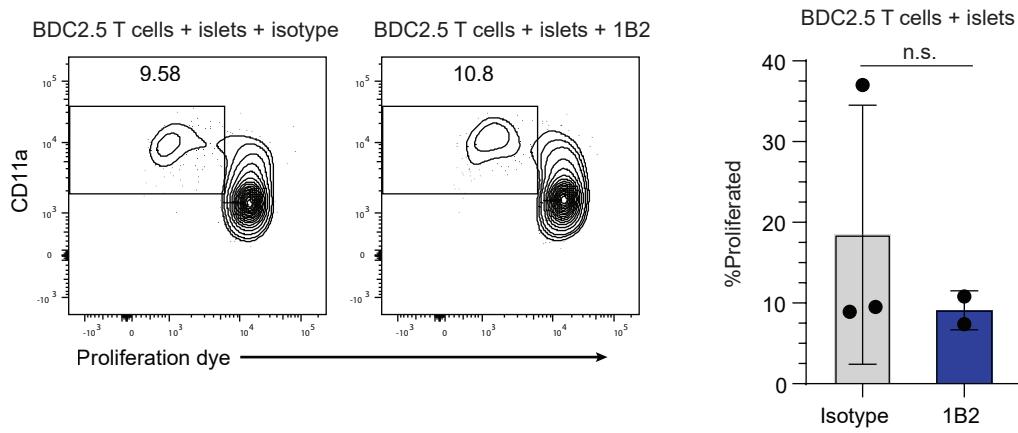


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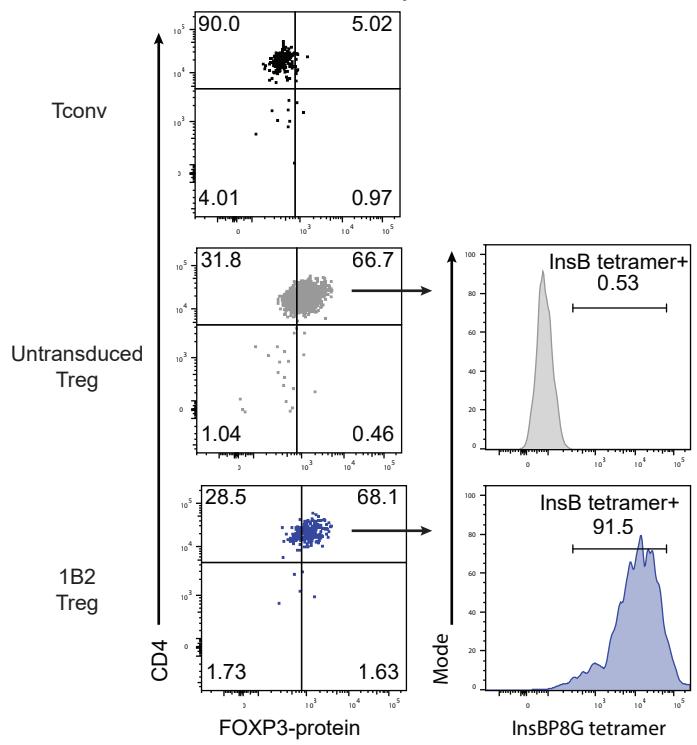


Supplemental figure 1. 1B2 antibody inhibits IL-2 release by InsBP8E stimulated AS150 T cell hybridoma. AS150 T cell hybridomas were cultured for 24hrs in the presence of various concentrations of InsBP8E peptide and IL-2 in the hybridoma supernatant was measured by ELISA. Data are representative of two independent experiments, n=1/group.

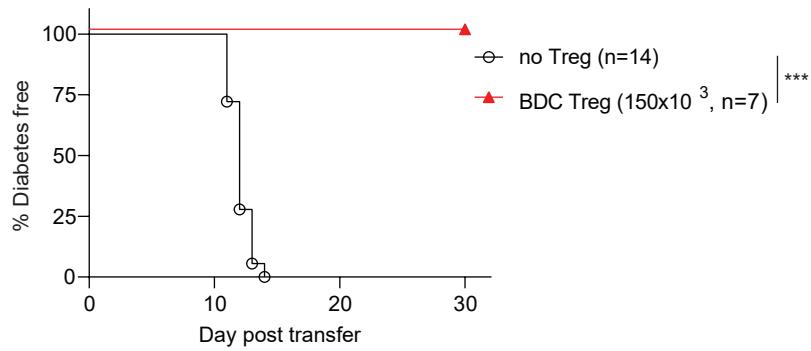


Supplemental figure 2. Flow cytometry plots (left) showing CD11a expression, as a marker of activation, and proliferation of BDC2.5 T cells after 3 days in culture with splenocytes as APCs and NOD islets, in the presence of either IgG1 isotype or 1B2 antibody. The panel of the right shows quantification of proliferation from plots shown on the left. Data is representative of 3 independent experiments, n=2-3/group. Students T-test, n.s.=not significant.

Gated on size and viability



Supplemental figure 3. Representative flow cytometry plots of cells after 5 days in culture which were used for in vivo experiments. FOXP3 expression was used to determine Treg purity and InsBP8G tetramers were used to determine InsB-g7 CAR retrovirus transduction efficiency.



Supplemental figure 4. BDC2.5 Tregs suppress BDC 2.5 T cell-induced autoimmune diabetes. Survival curve for 6-10wk old NOD.*Rag*^{-/-} mice receiving 150x10³(3:1) in vitro expanded BDC2.5 Tregs cotransferred with 50x10³ naïve BDC2.5 CD4⁺ T cells. Data is from 1 experiment, no Treg n=14, 150x10³ BDC2.5 Treg n=7. Log-rank test with Bonferroni correction, ***P<0.001.

Supplemental Table 1. Antibodies used for flow cytometry

| Antigen | Fluor | Clone | Supplier | Catalogue number |
|------------------------------------|-------------------|----------|-------------------|------------------|
| CD4 | PE | RM4-5 | Tonbo Biosciences | 50-0042 |
| | | GK1.5 | BD Biosciences | 557308 |
| | BUV496 | GK1.5 | BD Biosciences | 612952 |
| | BV605 | RM4-5 | BD Biosciences | 563151 |
| CD11b | APC-ef780 | M1170 | ThermoFisher | 47-0112-82 |
| CD11c | APC-ef780 | N418 | ThermoFisher | 47-0114-82 |
| | SB780 | N418 | ThermoFisher | 78-0114-80 |
| B220 | APC-ef780 | RA3-6B2 | ThermoFisher | 47-0452-82 |
| Thy1.1 | BUV737 | OX7 | BD Biosciences | 612837 |
| Thy1.2 | BV786 | 30-H12 | BioLegend | 105331 |
| CD45.1 | BV711 | A20 | BioLegend | 110739 |
| CD45.2 | BUV395 | | | |
| PD-1 | PerCp-ef710 | J43 | ThermoFisher | 46-9985-82 |
| Fixable L/D dye | Ghost dye Red-780 | | Tonbo Biosciences | 13-0865 |
| Fixable Viability Dye eFluor™ 780 | eF780 | | ThermoFisher | 65-0865-18 |
| Cell Proliferation Dye eFluor™ 450 | eF450 | | ThermoFisher | 65-0842-90 |
| Cell Proliferation Dye eFluor™ 670 | eF670 | | ThermoFisher | 65-0840-90 |
| Foxp3 | AF488 | FJK-16s | ThermoFisher | 53-5773-82 |
| | PE | FJK-16s | ThermoFisher | 12-5773-82 |
| Ki67 | BUV737 | solA15 | ThermoFisher | 367-5698-82 |
| | BV421 | 16A8 | BioLegend | 652411 |
| CTLA4 | PE | 4C10-4B9 | BioLegend | 563151 |
| Helios | PE-Cy7 | 22F6 | BioLegend | 137236 |
| | eF450 | 22F6 | ThermoFisher | 48-9883-42 |
| IFN γ | BV650 | XMG1.2 | BioLegend | 505532 |
| TNF α | Ef450 | mAb11 | ThermoFisher | 48-7349-42 |
| c-Myc | AF647 | 9E10 | UBC Ablab | 67-0029-01 |
| LAP | PE | TW7-16B4 | ThermoFisher | 12-9821-82 |
| CD69 | BV785 | H1.2F3 | Biolegend | 104543 |
| CD152 (CTLA-4) | BV605 | UC10-4B9 | Biolegend | 106323 |
| CD86 | BV650 | GL1 | BD Biosciences | 564200 |
| CD80 | BUV395 | 16-10A1 | BD Biosciences | 740246 |