TITLE: Proinsulin-specific t-cell responses correlate with estimated c-peptide and predict partial remission duration in type 1 diabetes

RUNNING TITLE: Proinsulin-specific T-cells as a T1D biomarker

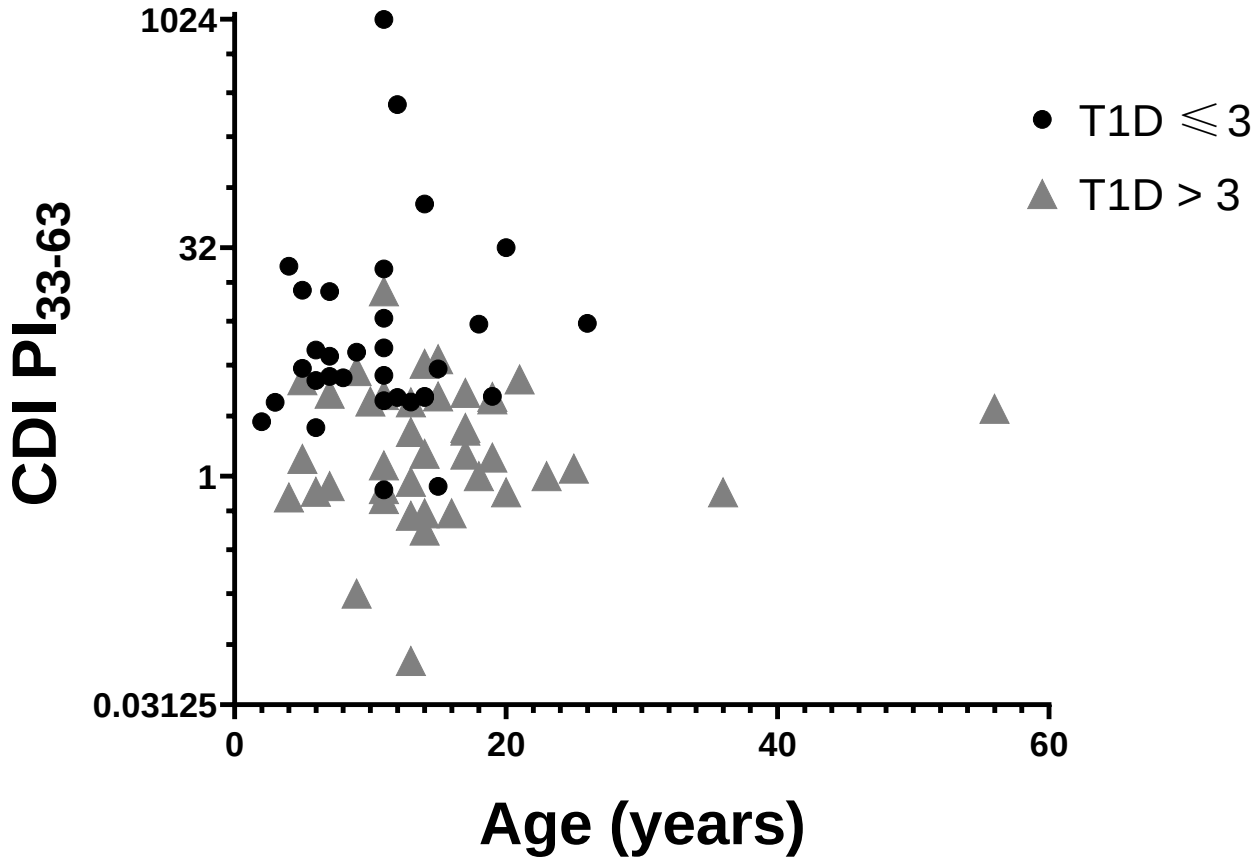
SUPPLEMENTARY FIGURES AND TABLES

Table 1. Islet antibody status of participants

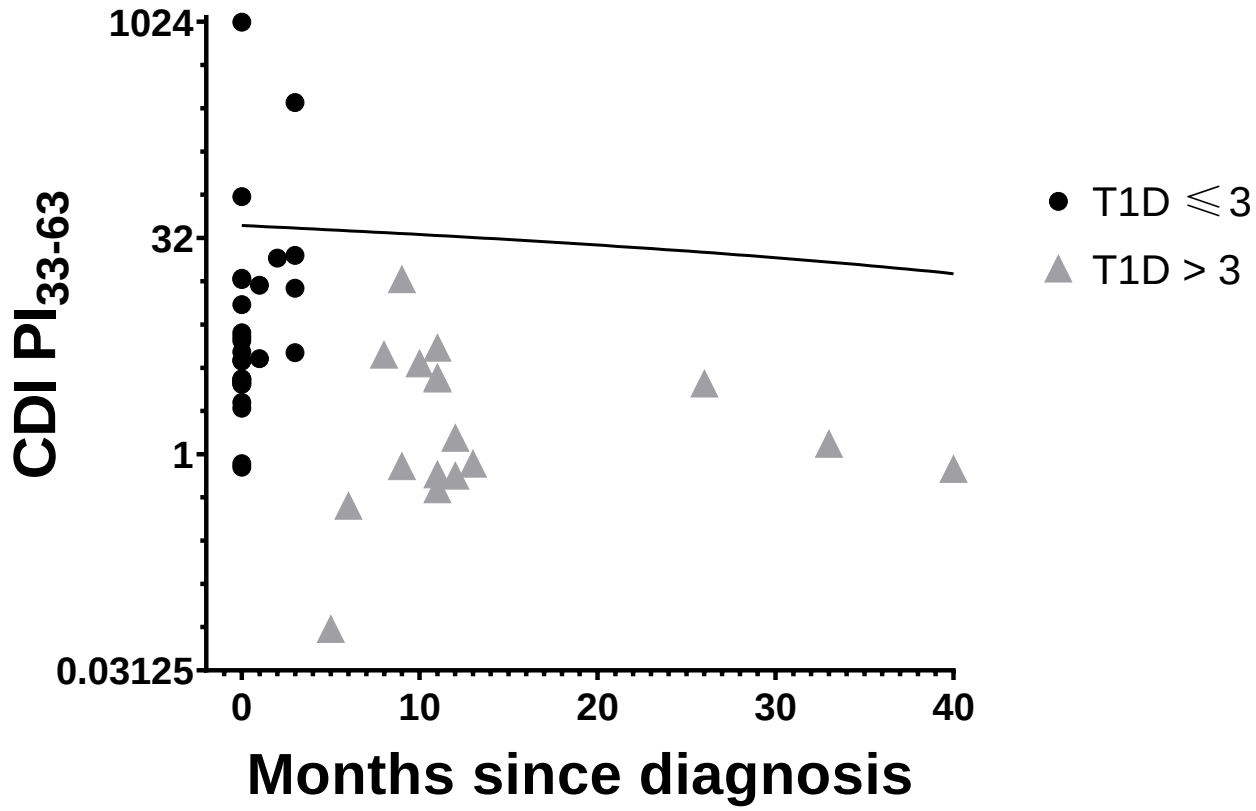
Islet antibody	Healthy controls (16)	AB-negative FDR (9)	AB-positive FDR (17)
Glutamic acid decarboxylase 65 (GAD 65)	0	0	12 (71%)
Islet tyrosine phosphatase-like protein (IA-2)	0	0	9 (53%)
Microinsulin (miaa)	0	0	15 (88%)
Islet cell (ICA)	0	0	12 (71%)
Zinc transporter 8 (ZnT8)	0	0	9 (53%)
>1 islet antibody	0	0	11 (64%)

Supplementary Table 2. ROC, Receiver Operator Characteristic Curve analysis of T1D ≤ 3 months (n=22) and Healthy controls (n=12). CDI, Cell Division Index is calculated from the mean of unstimulated proliferation in triplicate experiments.

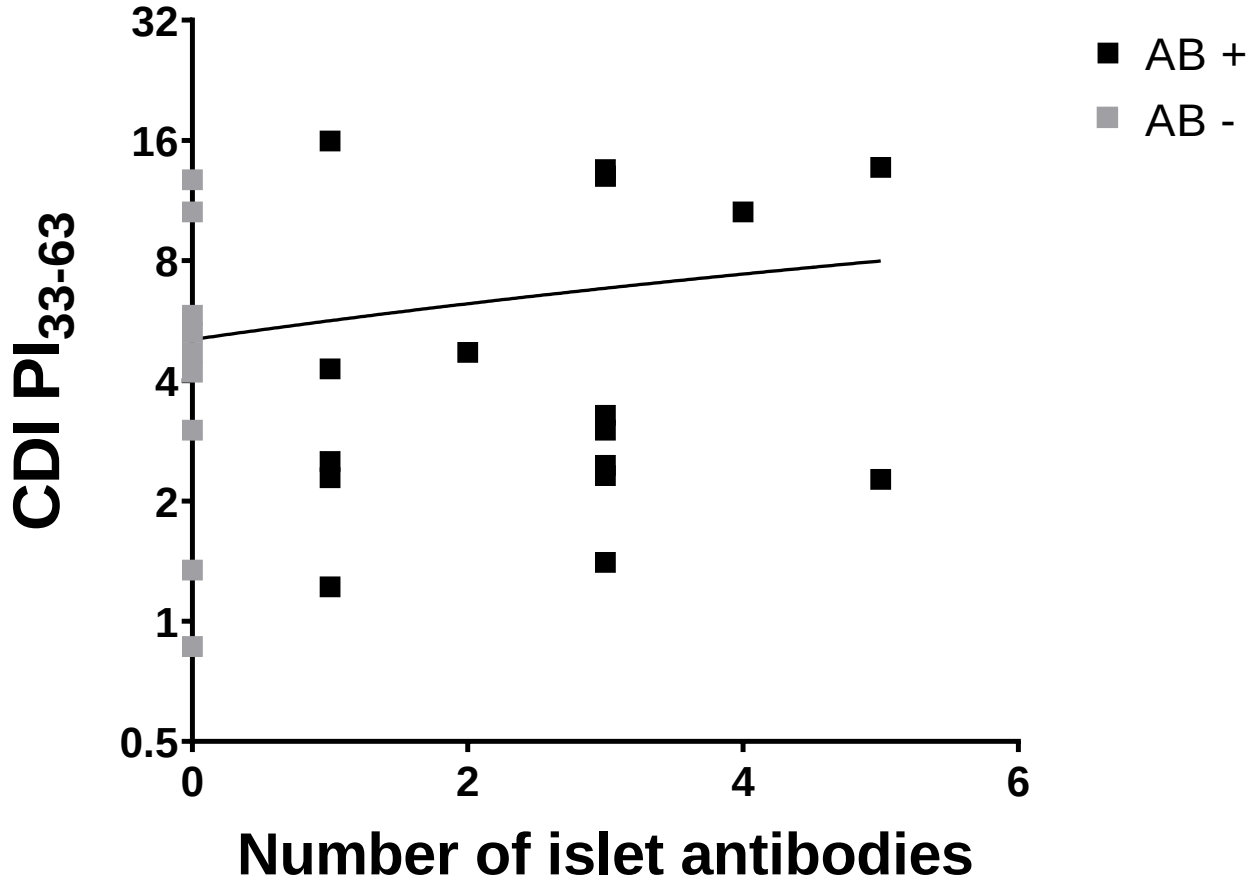
Cell-Division Index	Sensitivity (%)	Specificity (%)
> 2.0	91%	73%
> 2.6	81%	73%
> 2.9	77%	73%
> 3.0	77%	81%
> 3.5	63%	81%



Supplementary Figure 1. CD4$^+$ T-cell proliferative responses to proinsulin$_{33\text{-}63}$ relative to age for T1D subjects. (r_s = -0.18, P- = 0.11). CDI was calculated from the mean of unstimulated proliferation in triplicate experiments. T1D ≤ 3 months, n= 32; T1D > 3 months, n = 40.



Supplementary Figure 2. CD4+ T cell proliferative responses to proinsulin$_{33-63}$ relative to months since diagnosis for T1D subjects. (r_s = -0.47, P- = 0.0005).



Supplementary Figure 3. CD4+ T cell proliferative responses to proinsulin$_{33-63}$ relative to number of islet antibodies for prediabetes subjects. (r2 =0.14, P- = 0.58).