TABLES AND FIGURES FOR SUPPLEMENTARY MATERIAL

S.Table 1-3. Summary of statistical analysis of 2-tailed student's t test (TTEST) of SND Indexes from 10 T1D patients and 10 normal controls in the self-nonself discrimination assay.

TTEST 1: Within T1D Patients	
	TT versus GAD
CD4+ T	*P=0.0002 (<0.001)
CD4/CD8 T Cells	*P=0.012 (<0.05)
	CD4+ T versus CD4/CD8 T Cells
TT	P=0.87 (>0.5)
GAD	P=0.17 (>0.5)
TTEST 2: Within Normal Controls	
	TT versus GAD
CD4+ T	*P=0.0078 (<0.01)
CD4/CD8 T Cells	P=0.026 (<0.05)
	CD4+ T versus CD4/CD8 T Cells
TT	P=0.002 (<0.005)
GAD	P=0.033 (<0.05)
TTEST 3: Patients versus Controls	
	CD4+ T versus CD4+ T
TT	P=0.52 (>0.5)
GAD	P=0.21 (>0.1)
	CD4/CD8 T Cells versus CD4/CD8 T Cells
TT	P=0.002 (<0.005)
GAD	P=0.041 (<0.05)

S.Table 1. TTEST performed on SND Indexes of responses to TT versus to GAD from freshly isolated CD4+ T cells and CD4+ T cells plus CD8+ T cells between T1D patients and normal controls, represent the P values of SND Indexes from the experiments shown in Fig.2C. P< 0.05 represent significant differences.

*: P is significant in a reversed direction, e.g., SND Indexes are higher for foreign antigen TT than self-antigen GAD.

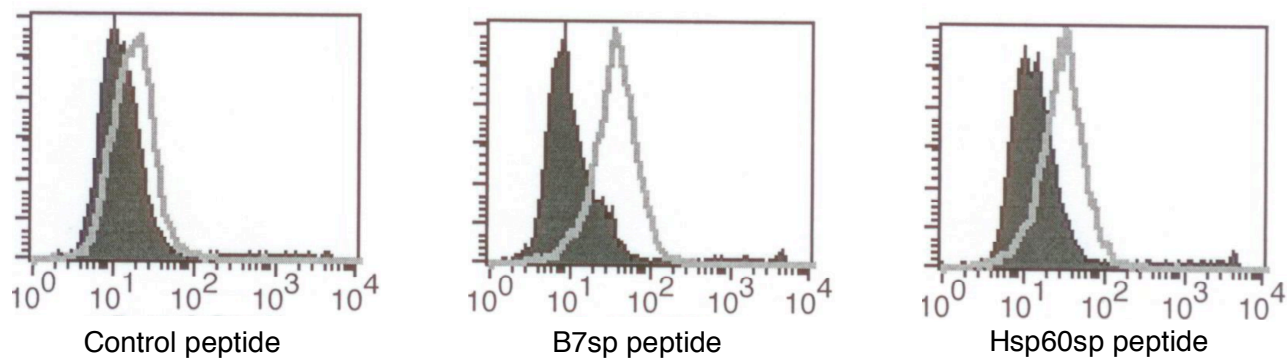| TTEST 1: Within T1D Patients	
	TT versus MBP
CD4+ T	*P=0.007 (<0.01)
CD4/CD8 T Cells	*P=0.019 (<0.05)
	CD4+ T versus CD4/CD8 T Cells
TT	P=0.86 (>0.5)
MBP	P=0.23 (>0.1)
TTEST 2: Within Normal Controls	
	TT versus MBP
CD4+ T	*P=0.008 (<0.01)
CD4/CD8 T Cells	P=0.040 (<0.05)
	CD4+ T versus CD4/CD8 T Cells
TT	P=0.005 (<0.01)
MBP	P=0.043 (<0.05)
TTEST 3: Patients versus Controls	
	CD4+ T versus CD4+ T
TT	P=0.19 (>0.1)
MBP	P=0.10 (>0.1)
	CD4/CD8 T Cells versus CD4/CD8 T Cells
TT	P=0.003 (<0.005)
MBP	P=0.028 (<0.05)

S.Table 2. TTEST performed on SND Indexes of responses to TT versus to MBP from freshly isolated CD4+ T cells and CD4+ T cells plus CD8+ T cells between T1D patients and normal controls, represent the P values of SND Indexes from the experiments shown in S.Fig.2. P< 0.05 represent significant differences.

*: P is significant in a reversed direction, e.g., SND Indexes are higher for foreign antigen TT than self-antigen MBP.

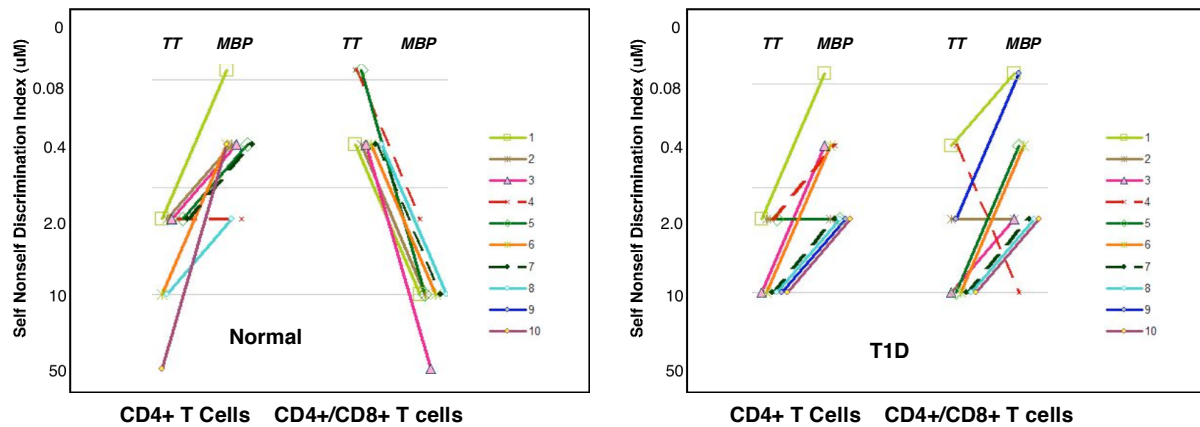| TTEST 1: Within T1D Patients	
	TT versus GAD
CD8(N)	*P=0.014 (<0.05)
CD8(B)	*P=0.025 (<0.05)
CD8(H)	P=0.041 (<0.05)
	CD8(N) versus CD8(H)
TT	P=0.002 (<0.005)
GAD	P=0.039 (<0.05)
	CD8(B) versus CD8(H)
TT	P=0.018 (<0.05)
GAD	P=0.043 (<0.05)
TTEST 2: Within Normal Controls	
	TT versus GAD
CD8(N)	*P=0.045 (<0.05)
CD8(B)	*P=0.001 (<0.005)
CD8(H)	P=0.026 (<0.05)
	CD8(N) versus CD8(H)
TT	P=0.035 (<0.05)
GAD	P=0.031 (<0.05)
	CD8(B) versus CD8(H)
TT	P=0.001 (<0.005)
GAD	P=0.032 (<0.05)
TTEST 3: Patients versus Controls	
	CD8(N) versus CD8(N)
TT	P=0.256 (>0.1)
GAD	P=0.545 (>0.5)
	CD8(B) versus CD8(B)
TT	P=0.234 (>0.1)
GAD	P=0.474 (>0.1)
	CD8(H) versus CD8(H)
TT	P=0.253 (>0.1)
GAD	P=1.0 (>0.5)

S. Table 3. CD8+T cells from most T1D patients tested regain the capacity to discriminate self from nonself after an in vitro boost. TTEST performed on SND Indexes of responses to TT versus To GAD in the presence and absence of in vitro boosted HLA-E restricted CD8+ T cells between 10 T1D patients and 10 normal controls, represent the P values of SND Indexes from the experiments shown in Fig.3C. P< 0.05 represent significant differences.

*: P is significant in a reversed direction, e.g., SND Indexes are higher for foreign antigen TT than self-antigen GAD.

| Control peptide | B7sp peptide | Hsp60sp peptide |

HLA-E Surface Expression

S. Figure 1. Surface expression of HLA-E on a HLA-E transfectant B721/E after loading with peptides. HLA-E transfectants were loaded with peptide followed the surface staining with anti-HLA-E mAb as described in the methods.

S. Figure 2. Freshly isolated CD8+ T cells from majority of the T1D patients tested lost the capacity to discriminate self from nonself in the periphery. Immune responses of purified CD4+ T cells to self-antigen MBP versus to foreign antigen TT were compared with CD4+ T cells plus CD8+ T cells in each T1D patient, paired with normal control. Data summarize 10 T1D patients and corresponding controls.