Supplementary Figure Legend

Supplementary Figure 1. Recognition of N-terminally modified $pMART_{100-114}$ peptides by $CD4^+$ T cells. The T cell clone D7-F6 was co-incubated overnight with HLA-$DR1^+$ 2048-EBV cells pre-pulsed with native or modified pMART-1 peptides (25 μM). GM-CSF secretion from T cells was measured by ELISA. Background GM-CSF secretion from T cells + APC + $HA_{307-319}$ control peptide was <0.02 ng/ml. Results are representative of four independent experiments with D7-F6 and the parent $CD4^+$ T cell line D7, showing that residues N-terminal to the P1 peptide-MHC anchor position (Tyr104) influence T cell recognition.

Residues	Sequence	DRB1*0101 IC50 (nM)	D7-F6 T cells
100-114	APPAYEKLpSAEQSPP	102	
100-114,A100I	**I**PPAYEKLpSAEQSPP	109	
100-114,P101A	A**A**PAYEKLpSAEQSPP	199	
100-114,P102A	AP**A**AYEKLpSAEQSPP	69	
100-114,A103I	APP**I**YEKLpSAEQSPP	346