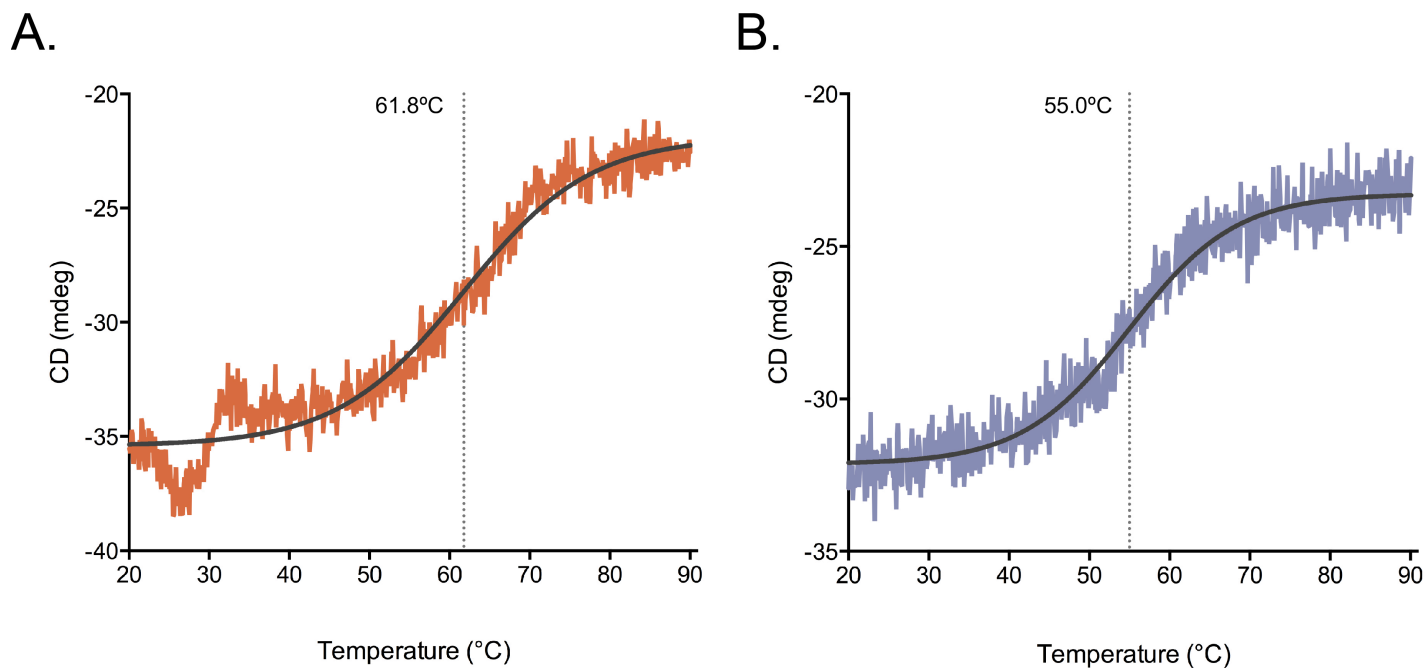


Supplementary Figure 1

Hydrogen-deuterium exchange spectra for the TW10 peptide in complex with HLA-B*57:01 and free in solution.

(a) Peptide in complex with HLA-B*57:01 at 0 seconds showing the normal isotopic distribution for a singly charged peptide (b) The peptide in complex with HLA-B*57:01 after 10 seconds incubation in D_2O showing a single Gaussian distribution indicative of a single bound conformation and (c) the peptide free in a solution of D_2O for 10 seconds showing a bimodal distribution suggesting multiple conformations in solution. Spectra displayed are from a single experiment and represent data from three independent experiments.



Supplementary Figure 2

Circular dichroism readings taken at 222 nm over a temperature range of 20–90 °C for the HLA-B*57:01-TW10 complex (**a**) and the HLA-B*57:01-T3N complex (**b**).

T_m was calculated by fitting a sigmoidal dose-response curve and taking the IC50 value of the curve. Data represent a single experiment.

Supplementary Note 1:

Sub-categorisation of nested peptides in Figure 2: N-terminally extended – peptides with versions extended at the N-terminus, but not the C-terminus (blue), C-terminally extended – peptides with versions extended at the C-terminus, but not the N-terminus (red); N- or C-terminally extended – peptides with versions extended at the N-terminus and versions extended at the C-terminus (green), N- and C-terminally extended – peptides with versions extended at both the N- and C-terminus but not at either terminus alone (purple), and Maximal sequence – peptides that are the maximal sequence of an extended set (turquoise).