Screening for HIV-specific T-cell responses using overlapping 15-mer peptide pools or optimized epitopes

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Abstract:

The IFN-ª enzyme-linked immunospot (ELISpot) assay is often used to map HIV-specific CD8 T-cell responses. We compared overlapping 15-mer pools with optimized CD8 epitopes to screen ELIS pot responses in HIV-infected individuals. The 15-mer pools detected responses to previously undefined epitopes, but often missed low-level responses to predefined epitopes, particularly when the epitope was central in the 15-mer, rather than at the N-terminus or Cterminus. These factors should be considered in the monitoring of HIV vaccine trials.