DATASHEET

Version: 2016-08-18

SIYRY

Cat. No.: RP20234

Size: 1 mg

Description:

Alloreactive T lymphocytes are readily detected in unprimed animals although they have never encountered the alloantigen before. This well-established phenomenon is usually explained with the assumption that a self-MHC molecule complexed with a defined peptide resembles the allo-MHC molecule with another peptide and induces the corresponding T cell specificities. Here, for the first time and in support of this hypothesis, self-MHC-restricted peptides are described for a T cell clone that was induced with allo-MHC. The allo-MHC-specific CTL clone 2C was derived from a H-2b mouse and recognizes H-2Ld complexed with the naturally occurring endogenous peptide LSPFPFDL. H-2Kb was shown to be involved in positive selection of its TCR, and peptides associated with this MHC molecule are implicated in the process. To identify such peptides, positional scanning with random peptide libraries combined with an iterative approach was employed. Several active peptides were found and the most efficient, SIYRYYGL, was chosen for further studies. Recognition by 2C of the two MHC-peptide adducts H-2Ld + LSPFPFDL and H-2Kb + SIYRYYGL is mediated by the same TCR and appears to be similarly efficient as concluded from inhibition experiments with an Id-specific Ab. CTLs from SIYRYYGL-primed H-2b mice respond to H-2Ld + LSPFPFDL. This reciprocal cross-reactivity suggests that structural features are shared by the two MHC-peptide complexes.

Sequence (one-letter code):

SIYRYYGL

Sequence (three-letter code):

{Ser}{Ile}{Tyr}{Arg}{Tyr}{Tyr}{Gly}{Leu}

Formula: $C_{50}H_{71}N_{11}O_{13}$

Molecular Weight: 1,034.19

Purity: > 95%

Storage:

Store at -20°C. Keep tightly closed. Store in a cool dry place.

Note:

*For Non-Clinical Research Use Only *