

T-Select PEPTIDE

# H-2K<sup>b</sup> SIY Peptide

# SIYRYYGL

Code No.	Quantity	Concentration
TS-M008-P	100 µL	10 mg/mL

For Research Use Only. Not for administration to humans, and not for diagnostic or therapeutic use.

**Peptide Sequence:** SIYRYYGL (8 aa)

**Origin:** Designed peptide

**MHC Restriction:** H-2K<sup>b</sup>

**Molecular Weight:** 1,034.18 Da

**Purity:** ≥90%

**Formulation:** 10 mg/mL peptide solution in DMSO  
Handle using aseptic techniques to avoid contamination.

### Storage Conditions

Store at -20°C. Repeated freeze-thaw cycles should be avoided.

### Background

T lymphocytes play a central role in the immune system. Major histocompatibility complex (MHC) is important for T cell recognition of surface antigen. In humans, MHC is also called human leukocyte antigen (HLA). MHCs present epitope peptides derived from both self and non-self protein, and these MHC/peptide complexes are recognized by T cells via their T-cell receptors (TCRs). In general, CD8<sup>+</sup> cytotoxic T cells (CTLs) recognize the MHC class I/peptide complex and CD4<sup>+</sup> helper T cells recognize MHC class II/peptide complex. Epitope peptides binding to class I molecules typically consist of approximately 8 to 10 consecutive amino acid residues. Meanwhile, epitope peptides binding to class II molecules are not constrained in size and can vary from 11 to 30 amino acids long.

T-Select PEPTIDE is a ready-to-use epitope peptide in liquid form and this peptide is used to produce MHC Tetramer reagent. Epitope peptides enable to stimulate CTLs in an antigen-specific manner, and also to induce T-helper immunity. Therefore, T-Select PEPTIDE series are available for T cell stimulation and expansion to examine T cell functions such as cytokine production, expression of cell surface marker, cytotoxic activity, etc.

### H-2K<sup>b</sup> Negative (SIY) Tetramers

TS-M008-1 H-2K<sup>b</sup> Negative (SIY) Tetramer-SIYRYYGL-PE  
TS-M008-2 H-2K<sup>b</sup> Negative (SIY) Tetramer-SIYRYYGL-APC

### Mouse Strain H-2K Haplotypes

H-2K allele	H-2K <sup>b</sup>	H-2K <sup>d</sup>	H-2K <sup>k</sup>
Mouse strains	C57BL/-, BXSb/Mp, 129/-	BALB/c, DBA/2, NOD	C3H/He, AKR/J

### References for this epitope

- 1) Udaka K, *et al. Immunology* **157**: 670-678 (1996)
- 2) Chamoto K, *et al. Cancer Res* **66**: 1809-1817 (2006)
- 3) Wakita D, *et al. Int Immunol* **18**: 425-434 (2006)
- 4) Fujimura T, *et al. Eur J Immunol* **36**: 3371-3380 (2006)
- 5) Asano J, *et al. J Immunol* **184**: 736-745 (2010)

### Related Products

Please check our web site (<https://ruo.mbl.co.jp>) for up-to-date information on products and custom MHC Tetramers.

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