

T-Select PEPTIDE

# I-A<sup>b</sup>/I-A<sup>d</sup> OVA helper Peptide

## ISQAVHAAHAEINEAGR

Code No.	Quantity	Concentration
TS-M703-P	100 µL	10 mg/mL

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

**Peptide Sequence:** ISQAVHAAHAEINEAGR (17 aa)

**Origin:** Ovalbumin (OVA), 323-339 aa

**MHC Restriction:** I-A<sup>b</sup>, I-A<sup>d</sup>

**Molecular Weight:** 1,773.93 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.

Please refer to the data sheet of MHC Tetramer reagent which comprises this epitope peptide and I-A<sup>b</sup> (MBL, PN TS-M710-1) for more details.

### I-A<sup>b</sup> OVA<sub>323-339</sub> Tetramers

TS-M710-1 I-A<sup>b</sup> OVA<sub>323-339</sub> Tetramer-PE  
TS-M710-2 I-A<sup>b</sup> OVA<sub>323-339</sub> Tetramer-APC

### I-A<sup>d</sup> OVA<sub>323-339</sub> Tetramers

TS-M703-1 I-A<sup>d</sup> OVA<sub>323-339</sub> Tetramer-PE  
TS-M703-2 I-A<sup>d</sup> OVA<sub>323-339</sub> Tetramer-APC

### Mouse I-A Alleles

MHC class II	I-A <sup>b</sup>	I-A <sup>d</sup>	I-A <sup>k</sup>	I-A <sup>s</sup>
Mouse strains	C57BL/-, BXSB/Mp, 129/-	BALB/c, DBA/2, B10D2	C3H/He	SJL/J B10.S

### References for OVA<sub>323-339</sub>

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- 4) Valmori D, *et al. J Immunol* **149**: 717-721 (1992)
- 5) van der Most RG, *et al. J Immunol* **157**: 5543-5554 (1996)
- 6) Scott CA, *et al. Immunity* **8**: 319-329 (1998)
- 7) Ossendorp F, *et al. J Exp Med* **187**: 693-702 (1998)
- 8) Barnden MJ, *et al. Immunol Cell Biol* **76**: 34-40 (1998)
- 9) de Cerio ALD, *et al. Int Immunol* **11**: 2025-2034 (1999)
- 10) Robertson JM, *et al. J Immunol* **164**: 4706-4712 (2000)
- 11) de Cerio ALD, *et al. Int Immunol* **15**: 691-699 (2003)
- 12) Moon JJ, *et al. Immunity* **27**: 203-213 (2007)
- 13) Landais E, *et al. J Immunol* **183**: 7949-7957 (2009)

### 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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