

T-Select PEPTIDE

H-2K^b β-galactosidase

Peptide

DAPIYTNV

Code No.

TS-M501-P

Quantity

100 μL

Concentration

10 mg/mL

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

Peptide Sequence: DAPIYTNV (8 aa)

Origin: β-galactosidase, 96-103 aa

MHC Restriction: H-2K^b

Molecular Weight: 891.98 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⁺ cytotoxic T cells (CTLs) recognize the MHC class I/peptide complex and CD4⁺ 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 H-2K^b (MBL, PN TS-M501-1) for more details.

H-2K^b β-galactosidase Tetramers

TS-M501-1 H-2K^b β-galactosidase Tetramer-DAPIYTNV-PE
TS-M501-2 H-2K^b β-galactosidase Tetramer-DAPIYTNV-APC

Mouse Strain H-2K Haplotypes

H-2K allele	H-2K ^b	H-2K ^d	H-2K ^k
Mouse strains	C57BL/-, BXSB/Mp, 129/-	BALB/c, DBA/2, NOD	C3H/He, AKR/J

References for this epitope

- 1) Overwijk WW, *et al. Methods* **12**: 117-123 (1997)
- 2) Hodge JW, *et al. J Immunol* **174**: 5994-6004 (2005)
- 3) Yang S, *et al. J Immunol* **175**: 3715-3723 (2005)
- 4) Koyama S, *et al. J Immunol* **179**: 4711-4720 (2007)

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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