

T-Select PEPTIDE

H-2D^b Influenza NP

Peptide ASNENMDTM

| Code No. | Quantity | Concentration |
|-----------|----------|---------------|
| TS-M502-P | 100 µL | 10 mg/mL |

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

Peptide Sequence: ASNENMDTM (9 aa)

Origin: Influenza A/Ann Arbor/60 (H2N2)
Nucleoprotein (NP), 366-374 aa

MHC Restriction: H-2D^b

Molecular Weight: 1,012.07 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-2D^b (MBL, PN TS-M502-1) for more details.

H-2D^b Influenza NP Tetramers

TS-M502-1 H-2D^b Influenza NP Tetramer-ASNENMDTM-PE
TS-M502-2 H-2D^b Influenza NP Tetramer-ASNENMDTM-APC
TS-M508-1 H-2D^b Influenza NP Tetramer-ASNENMETM-PE
TS-M508-2 H-2D^b Influenza NP Tetramer-ASNENMETM-APC
TS-M527-1 H-2D^b Influenza NP Tetramer-ASNENMDAM-PE
TS-M527-2 H-2D^b Influenza NP Tetramer-ASNENMDAM-APC

Mouse Strain H-2D Haplotypes

| H-2D allele | H-2D ^b | H-2D ^d | H-2D ^k |
|---------------|-----------------------------------|-----------------------------|----------------------------|
| Mouse strains | C57BL/-, BXSB/Mp, 129/-,NOD | BALB/c, DBA/2, B10.D2 | C3H/He, AKR/J, CBA/- |

References for This Epitope

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- 2) Stevenson GP, *et al. PNAS* **95**: 15565-15570 (1998)
- 3) Shotton DM, *et al. PNAS* **95**: 15571-15576 (1998)
- 4) Price GE, *et al. J Exp Med* **191**: 1853-1867 (2000)
- 5) de Visser KE, *et al. J Immunol* **167**: 3818-3828 (2001)
- 6) Mitchell KA, *et al. Toxicol Sci* **74**: 74-84 (2003)
- 7) Price GE, *et al. J Virol* **79**: 8545-8559 (2005)
- 8) Divangahi M, *et al. J Immunol* **179**: 4015-4026 (2007)
- 9) Nakamura R, *et al. J Virol* **84**: 5574-5582 (2010)
- 10) Takada K, *et al. Nat Immunol* **16**: 1069-1076 (2015)

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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