

T-Select PEPTIDE

H-2D^b Influenza NP

Peptide ASNENMETM

Code No.	Quantity	Concentration
TS-M508-P	100 µL	10 mg/mL

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

Peptide Sequence: ASNENMETM (9 aa)

Origin: Influenza A/Puerto Rico/8/34 (PR8, H1N1)
Nucleoprotein (NP), 366-374 aa

MHC Restriction: H-2D^b

Molecular Weight: 1,026.10 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-M508-1) for more details.

H-2D^b Influenza NP Tetramers

TS-M502-1 H-2D^b Influenza NP Tetramer-ASNENMDITM-PE
TS-M502-2 H-2D^b Influenza NP Tetramer-ASNENMDITM-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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- 6) Turner SJ, *et al. J Immunol* **167**: 2753-2758 (2001)
- 7) Topham DJ, *et al. J Immunol* **167**: 6983-6990 (2001)
- 8) Stambas J, *et al. J Immunol* **178**: 1285-1292 (2007)
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- 11) Ishikawa H, *et al. J Clin Immunol* **32**: 256-267 (2012)
- 12) Katsura H, *et al. Vaccine* **30**: 6027-6033 (2012)
- 13) Uematsu T, *et al. Sci Rep* **5**: 17577 (2015)
- 14) Dhanwani R, *et al. J Virol* **90**: 2551-2560 (2016)

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