

T-Select PEPTIDE

# HLA-A\*24:02 CMV pp65 Peptide QYDPVAALF

Code No.	Quantity	Concentration
TS-0020-P	100 $\mu$ L	10 mg/mL

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

**Peptide Sequence:** QYDPVAALF (9 aa)

**Origin:** CMV pp65, 341-349 aa

**HLA Restriction:** HLA-A\*24:02

**Molecular Weight:** 1,023.15 Da

**Purity:**  $\geq$ 90%

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

#### Storage Conditions

Store at  $-20^{\circ}\text{C}$ . 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,  $\text{CD8}^{+}$  cytotoxic T cells (CTLs) recognize the MHC class I/peptide complex and  $\text{CD4}^{+}$  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 HLA-A\*24:02 (MBL, PN TS-0020-1C) for more details.

#### HLA-A\*24:02 CMV pp65 Tetramers

TS-0020-1C HLA-A\*24:02 CMV pp65 Tetramer-QYDPVAALF-PE  
TS-0020-2C HLA-A\*24:02 CMV pp65 Tetramer-QYDPVAALF-APC  
TB-0020-4 HLA-A\*24:02 CMV pp65 Tetramer-QYDPVAALF-BV421

#### References for HLA-A\*24:02 CMV pp65 epitope

- 1) Kuzushima K, *et al. Blood* **98**: 1872-1881 (2001)
- 2) Kondo E, *et al. J Immunol* **169**: 2164-2171 (2002)
- 3) Kuzushima K, *et al. Blood* **101**: 1460-1468 (2003)
- 4) Kondo E, *et al. Blood* **103**: 630-638 (2004)
- 5) Watanabe K, *et al. Int J Hematol* **88**: 311-320 (2008)
- 6) Kozako T, *et al. Leukemia* **23**: 375-382 (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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