

T-Select PEPTIDE

**HLA-A\*02:01 WT1<sub>37-45</sub>**

**Peptide**

**VLDFAPPGA**

**Code No.**  
TS-M140-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:** VLDFAPPGA (9 aa)

**Origin:** Wilms' tumor gene 1 (WT1), 37–45 aa

**HLA Restriction:** HLA-A\*02:01

**Molecular Weight:** 887 Da

**Purity:** ≥98%

**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 HLA-A\*02:01 (MBL, PN TS-M140-1,-2) for more details.

**HLA-A\*02:01 WT1 Tetramers**

TS-M140-1 HLA-A\*02:01 WT1<sub>37-45</sub> Tetramer-VLDFAPPGA-PE  
TS-M140-2 HLA-A\*02:01 WT1<sub>37-45</sub> Tetramer-VLDFAPPGA-APC  
TS-M016-1 HLA-A\*02:01 WT1<sub>126-134</sub> Tetramer-RMFPNAPYL-PE  
TS-M016-2 HLA-A\*02:01 WT1<sub>126-134</sub> Tetramer-RMFPNAPYL-APC

**References for WT1 and This epitope**

- 1) Call KM, *et al. Cell* **60**: 509-520 (1990)
- 2) Gessler M, *et al. Nature* **343**: 774-778 (1990)
- 3) Smithgall M, *et al. Blood* (ASH Annual Meeting Abstracts). **98**: Abstract 121a (2001)
- 4) Rezvani K, *et al. Clin Cancer Res* **11**: 8799-8807 (2005).
- 5) Chaise C, *et al. Blood* **112**: 2956-2964 (2008)

**Related Products**

**T-Select Peptides**

TS-0010-P HLA-A\*02:01 CMV pp65 peptide  
TS-M012-P HLA-A\*11:01 CMV pp65 peptide  
TS-0020-P HLA-A\*24:02 CMV pp65 peptide  
TS-0011-P HLA-A\*02:01 EBV BMLF1 peptide  
TS-M003-P HLA-A\*24:02 EBV BMLF1 peptide  
TS-M002-P HLA-A\*24:02 EBV BRLF1 peptide  
TS-M004-P HLA-A\*24:02 EBV EBNA3A peptide  
TS-M005-P HLA-A\*24:02 EBV EBNA3B peptide  
TS-M069-P HLA-A\*02:01 EBV LMP2<sub>356-364</sub> peptide  
TS-M001-P HLA-A\*24:02 EBV LMP2<sub>222-230</sub> peptide  
TS-M035-P HLA-A\*24:02 EBV LMP2<sub>419-427</sub> peptide  
TS-M111-P HLA-A\*11:01 EBV LMP2 peptide  
TS-M135-P HLA-A\*11:01 EBV LMP2 S9T peptide  
TS-0018-P HLA-A\*02:01 HBV core peptide  
TS-0022-P HLA-A\*24:02 HBV core peptide  
TS-M007-P HLA-A\*24:02 HIV env gp160 peptide  
TS-M027-P HLA-A\*02:01 HIV gag peptide  
TS-M017-P HLA-A\*02:01 HTLV-1 Tax<sub>11-19</sub> peptide  
TS-M018-P HLA-A\*24:02 HTLV-1 Tax<sub>301-309</sub> peptide  
TS-M026-P HLA-A\*02:01 MPT51 peptide  
TS-0012-P HLA-A\*02:01 Influenza M1 peptide  
TS-0009-P HLA-A\*02:01 Mart-1 peptide  
TS-M011-P HLA-A\*02:01 NY-ESO-1 peptide

TS-M025-P HLA-A\*24:02 survivin-2B peptide  
TS-M136-P HLA-A\*24:02 PBF A24.2 peptide  
TS-M140-P HLA-A\*02:01 WT1<sub>37-45</sub> peptide  
TS-0029-P HLA-A\*02:01 Negative peptide

### **WT1 Tetramers**

TS-M140-1 HLA-A\*02:01 WT1<sub>37-45</sub> Tetramer-VLDFAPPGA-PE  
TS-M140-2 HLA-A\*02:01 WT1<sub>37-45</sub> Tetramer-VLDFAPPGA-APC  
TS-M016-1 HLA-A\*02:01 WT1<sub>126-134</sub> Tetramer-RMFPNAPYL-PE  
TS-M016-2 HLA-A\*02:01 WT1<sub>126-134</sub> Tetramer-RMFPNAPYL-APC  
TS-M014-1 HLA-A\*24:02 modified WT1 Tetramer-CYTWNQMNL-PE  
TS-M014-2 HLA-A\*24:02 modified WT1 Tetramer-CYTWNQMNL-APC  
TS-M504-1 H-2D<sup>b</sup> WT1<sub>126-134</sub> Tetramer-RMFPNAPYL-PE  
TS-M504-2 H-2D<sup>b</sup> WT1<sub>126-134</sub> Tetramer-RMFPNAPYL-APC

### **T-Select Human Tetramers**

#### **Cancer**

TS-M112-1 HLA-A\*24:02 CA9<sub>219-227</sub> Tetramer-EYRALQLHL-PE  
TS-M103-1 HLA-A\*02:01 CEA Tetramer-YLSGANLNL-PE  
TS-M080-1 HLA-A\*02:01 CEA (N6D) Tetramer-YLSGADLNL-PE  
TS-M101-1 HLA-A\*02:01 CD33 Tetramer-AIISGDSPV-PE  
TS-M102-1 HLA-A\*02:01 CD33 A65Y Tetramer-YIISGDSPV-PE  
TS-M084-1 HLA-A\*02:01 EphA2 Tetramer-TLADFDPV-PE  
TS-0014-1C HLA-A\*02:01 gp100 (wild) Tetramer-ITDQVPFSV-PE  
TS-0013-1C HLA-A\*02:01 gp100 (mutant) Tetramer-IMDQVPFSV-PE  
TS-0035-1C HLA-A\*02:01 gp100<sub>154-162</sub> Tetramer-KTWGQYWQV-PE  
TS-M082-1 HLA-A\*02:01 gp100 Tetramer-YLEPGPVTA-PE  
TS-M089-1 HLA-A\*24:02 gp100-intron 4 Tetramer-VYFFLPDHL-PE  
TS-0016-1 HLA-A\*02:01 Her-2/neu Tetramer-RLLQETELV-PE  
TS-0015-1C HLA-A\*02:01 Her-2/neu E75 Tetramer-KIFGSLAFL-PE  
TS-M083-1 HLA-A\*02:01 HM1.24 Tetramer-KLQDASAEV-PE  
TS-M010-1 HLA-A\*24:02 hTERT Tetramer-VYGFVRACL-PE  
TS-M115-1 HLA-A\*02:01 hTERT Tetramer-ILAKFLHWL-PE  
TS-M086-1 HLA-A\*02:01 IDO Tetramer-ALLEIASCL-PE  
TS-M114-1 HLA-A\*01:01 MAGE-A1 Tetramer-EADPTGHSY-PE  
TS-M070-1 HLA-A\*02:01 MAGE-A1 Tetramer-KVLEYVIKV-PE  
TS-M071-1 HLA-B\*07:02 MAGE-A1 Tetramer-RVRFVPSL-PE  
TS-M072-1 HLA-A\*02:01 MAGE-A2 Tetramer-YLQLVFGIEV-PE  
TS-M073-1 HLA-A\*24:02 MAGE-A2 Tetramer-EYLQLVFGI-PE  
TS-M074-1 HLA-A\*01:01 MAGE-A3 Tetramer-EVDPIGHLY-PE  
TS-M075-1 HLA-A\*02:01 MAGE-A3<sub>112-120</sub> Tetramer-KVAELVHFL-PE  
TS-M076-1 HLA-A\*02:01 MAGE-A3<sub>271-279</sub> Tetramer-FLWGPRLV-PE  
TS-M077-1 HLA-A\*24:02 MAGE-A3 Tetramer-IMPKAGLLI-PE  
TS-M078-1 HLA-A\*02:01 MAGE-A10 Tetramer-GLYDGMHL-PE  
TS-0009-1C HLA-A\*02:01 Mart-1 Tetramer-ELAGIGILTV-PE  
TS-M091-1 HLA-A\*24:02 MCPyV large T Ag Tetramer-EWWSGGFSF-PE  
TS-M088-1 HLA-A\*02:01 MUC1 Tetramer-LLLLTVLTV-PE  
TS-M011-1 HLA-A\*02:01 NY-ESO-1 Tetramer-SLLMMITQC-PE  
TS-M105-1 HLA-A\*02:01 NY-ESO-1 C9V Tetramer-SLLMMITQV-PE  
TS-M109-1 HLA-B\*07:02 P2X5 Tetramer-TPNQRQNV-PE  
TS-M081-1 HLA-A\*02:01 p53 Tetramer-LLGRNSFEV-PE  
TS-M107-1 HLA-A\*02:01 PAP<sub>299-307</sub> Tetramer-ALDVYNGLL-PE  
TS-M136-1 HLA-A\*24:02 PBF A24.2 Tetramer-AYRPVSRNI-PE  
TS-M117-1 HLA-A\*02:01 PRAME<sub>100-108</sub> Tetramer-VLDGLDVLL-PE  
TS-M119-1 HLA-A\*02:01 PRAME<sub>142-151</sub> Tetramer-SLYSFPEPEA-PE  
TS-M116-1 HLA-A\*02:01 PRAME<sub>300-309</sub> Tetramer-ALYVDSLFFL-PE  
TS-M118-1 HLA-A\*02:01 PRAME<sub>425-433</sub> Tetramer-SLLQHILIGL-PE  
TS-M120-1 HLA-A\*02:01 PSA<sub>141-150</sub> Tetramer-FLTPKKLQCV-PE

TS-0017-1 HLA-A\*02:01 PR-1 Tetramer-VLQELNVTV-PE  
TS-M087-1 HLA-A\*02:01 PSA Tetramer-KLQCVDLHV-PE  
TS-M104-1 HLA-A\*02:01 RHAMM Tetramer-ILSLELMKL-PE  
TS-M095-1 HLA-A\*02:01 PP2A Tetramer-SLLPAIVEL-PE  
TS-M079-1 HLA-A\*02:01 SSX-2 Tetramer-KASEKIFYV-PE  
TS-M025-1 HLA-A\*24:02 survivin-2B Tetramer-AYACNTSTL-PE  
TS-M085-1 HLA-A\*02:01 Survivin (T2M) Tetramer-LMLGFLKL-PE  
TS-0019-1C HLA-A\*02:01 Tyrosinase Tetramer-YMDGTMSQV-PE  
TS-M090-1 HLA-A\*24:02 Tyrosinase Tetramer-AFLPWHRLF-PE

#### **Control**

TS-0029-1C HLA-A\*02:01 Negative Tetramer-PE  
TS-0029-2C HLA-A\*02:01 Negative Tetramer-APC  
TS-M007-1 HLA-A\*24:02 Negative Tetramer-RYLDRDQQLL-PE  
TS-M007-2 HLA-A\*24:02 Negative Tetramer-RYLDRDQQLL-APC  
TS-M007-3 HLA-A\*24:02 Negative Tetramer-RYLDRDQQLL-FITC

#### **Kits**

4844 IMMUNOCYTO CD107a Detection Kit  
8223 IMMUNOCYTO IFN- $\gamma$  ELISPOT Kit  
AM-1005 IMMUNOCYTO Cytotoxicity Detection Kit

#### **Others**

6603861 CD8-FITC (T8)  
6607011 CD8-PC5 (T8)  
A07704 7-AAD Viability Dye  
MTG-001 Clear Back (Human FcR blocking reagent)

Please check our web site (<http://ruo.mbl.co.jp>) for up-to-date information on products and custom MHC Tetramers.