

T-Select PEPTIDE

H-2L^d P815

Peptide

LPYLGWLVF

Code No.
TS-M519-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: LPYLGWLVF (9 aa)

Origin: P815A (P1A), 35-43 aa

MHC Restriction: H-2L^d

Molecular Weight: 1,107 Da

Purity: ≥95%

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-2L^d (MBL, PN TS-M519-1) for more details.

H-2L^d P815 Tetramer

TS-M519-1 H-2L^d P815 Tetramer-LPYLGWLVF-PE

Mouse Strain H-2L Haplotypes

H-2L allele	H-2L ^d	H-2L ^q
Mouse strains	BALB/c, DBA/2, B10D2	DBA/1, SWR/J

References for this epitope

- 1) Lethe B, *et al. Eur J Immunol* **22**: 2283-2288 (1992)
- 2) Rosato A, *et al. J Immunol* **171**: 5172-5179 (2003)
- 3) Shanker A, *et al. J Immunol* **172**: 5069-5077 (2004)
- 4) Rosato A, *et al. J Immunol* **176**: 1999-2006 (2006)
- 5) Shanker A, *et al. J Immunol* **179**: 6651-6662 (2007)

Related Products

T-Select PEPTIDES

TS-5001-P	H-2K ^b OVA peptide
TS-5002-P	H-2D ^b LCMV gp33 peptide
TS-5004-P	H-2K ^b TRP-2 peptide
TS-5008-P	H-2D ^b HPV16 E7 peptide
TS-M501-P	H-2K ^b β-galactosidase peptide
TS-M502-P	H-2D ^b Influenza NP peptide
TS-M508-P	H-2D ^b Influenza NP peptide
TS-M527-P	H-2D ^b Influenza NP peptide
TS-M534-P	H-2K ^d Influenza NP peptide
TS-M520-P	H-2K ^d Influenza HA peptide
TS-M528-P	H-2D ^b Influenza PA peptide
TS-M503-P	H-2K ^d Listeria LLO peptide
TS-M505-P	H-2D ^b human gp100 peptide
TS-M506-P	H-2K ^d RSV peptide
TS-M507-P	H-2K ^b MuLV p15E peptide
TS-M521-P	H-2L ^d MuLV gp70 peptide
TS-M509-P	H-2K ^b SeV peptide
TS-M510-P	H-2L ^d MCMV IE1 peptide
TS-M511-P	H-2L ^d β-galactosidase peptide
TS-M512-P	H-2D ^b LCMV gp33 (C9M) peptide
TS-M513-P	H-2D ^b LCMV NP396 peptide

TS-M514-P H-2L^d LCMV NP118 peptide
TS-M515-P H-2K^d malaria peptide
TS-M516-P H-2D^d HIV P18-I10 peptide
TS-M517-P H-2D^d BCG MPT51 peptide
TS-M518-P H-2D^b CEA peptide
TS-M519-P H-2L^d P815 peptide
TS-M522-P H-2L^d HBsAg peptide
TS-M523-P H-2K^b HSV-1 gB peptide
TS-M524-P H-2D^b HY Uty peptide
TS-M525-P H-2K^d EGFP peptide
TS-M526-P H-2K^d HER2 peptide
TS-M529-P H-2K^b VSV NP peptide
TS-M530-P H-2D^k polyomavirus MT peptide
TS-M531-P H-2D^k HTLV-1 Tax₃₈₋₄₆ peptide
TS-M008-P H-2K^b SIY peptide
TS-M701-P I-A^b HBc helper peptide
TS-M702-P I-A^d Tetanus toxin p30 helper peptide
TS-M703-P I-A^b/I-A^d OVA helper peptide
TS-M704-P I-A^b MOG₃₅₋₅₅ peptide
TS-M707-P I-A^b ESAT-6₁₋₂₀ peptide
TS-M708-P I-A^k HEL peptide

T-Select Mouse Tetramers

Cancer

TS-5004-1C H-2K^b TRP2 Tetramer-SVYDFVWL-PE
TS-M504-1 H-2D^b WT1₁₂₆₋₁₃₄ Tetramer-RMFPNAPYL-PE
TS-M505-1 H-2D^b human gp100 Tetramer-KVPRNQDWL-PE
TS-M518-1 H-2D^b CEA Tetramer-EAQNTTYL-PE
TS-M519-1 H-2L^d P815 Tetramer-LPYLGWLVF-PE
TS-M526-1 H-2K^d HER2 Tetramer-TYLPTNASL-PE
TS-M544-1 H-2K^d JAK1 Tetramer-SYFPEITHI-PE
TS-M545-1 H-2K^d Erk2 K136Q Tetramer-QYIHSANVL-PE
TS-M546-1 H-2D^b gp100 Tetramer-EGSRNQDWL-PE
TS-M558-1 H-2K^b MAGE-AX₁₆₉₋₁₇₆ Tetramer-LGITYDGM-PE
TS-M559-1 H-2K^b MAGE-A5 Tetramer-HNTQYCNL-PE
TS-M561-1 H-2D^b hPSA Tetramer-HCIRNKSVIL-PE
TS-M562-1 H-2K^b mTERT Tetramer-VGRNFTNL-PE
TS-M563-1 H-2K^b pBM1 Tetramer-INFDFNTI-PE

Influenza

TS-M502-1 H-2D^b Influenza NP Tetramer-ASNENMDTM-PE
TS-M508-1 H-2D^b Influenza NP Tetramer-ASNENMETM-PE
TS-M527-1 H-2D^b Influenza NP Tetramer-ASNENMDAM-PE
TS-M528-1 H-2D^b Influenza PA Tetramer-SSELENFRAYV-PE
TS-M533-1 H-2K^b Influenza PB1 Tetramer-SSYRRPVGI-PE
TS-M566-1 H-2K^b Influenza NS2 Tetramer-RTFSFQLI-PE
TS-M520-1 H-2K^d Influenza HA Tetramer-IYSTVASSL-PE
TS-M535-1 H-2K^d Influenza HA Tetramer-LYQNVGTYY-PE
TS-M534-1 H-2K^d Influenza NP Tetramer-TYQRTRALV-PE

LCMV

TS-5002-1C H-2D^b LCMV gp₃₃ Tetramer-KAVYNFATC-PE
TS-M512-1 H-2D^b LCMV gp₃₃ (C9M) Tetramer-KAVYNFATM-PE
TS-5009-1 H-2D^b LCMV gp₂₇₆₋₂₈₆ Tetramer-SGVENPGGYCL-PE
TS-M513-1 H-2D^b LCMV NP₃₉₆ Tetramer-FQPQNGQFI-PE
TS-5010-1C H-2K^b LCMV gp₃₄₋₄₁ Tetramer-AVYNFATC-PE
TS-5011-1 H-2K^b LCMV gp₃₄₋₄₃ Tetramer-AVYNFATCGI-PE
TS-5012-1 H-2K^b LCMV gp₁₁₈₋₁₂₅ Tetramer-ISHNFCNL-PE
TS-5014-1 H-2K^b LCMV L protein Tetramer-LEYDFNKL-PE

TS-5015-1 H-2K^b LCMV NP₂₀₅₋₂₁₂ Tetramer-YTVKYPNL-PE
TS-M514-1 H-2L^d LCMV NP₁₁₈ Tetramer-RPQASGVYM-PE

HIV

TS-5007-1 H-2K^b HIV gag Tetramer-AMQMLKETI-PE
TS-M516-1 H-2D^d HIV P18-I10 Tetramer-RGPGRAFVTI-PE
TS-M536-1 H-2D^d HIV env Tetramer-IGPGRAFYA-PE

Virus

TS-M510-1 H-2L^d MCMV IE1 Tetramer-YPHFMPTNL-PE
TS-M521-1 H-2L^d MuLV gp70 Tetramer-SPSYVYHQF-PE
TS-M522-1 H-2L^d HBsAg Tetramer-IPQSLDSWWTSL-PE
TS-M568-1 H-2K^d MHV M2 Tetramer-GFNKLRSTL-PE
TS-M506-1 H-2K^d RSV Tetramer-SYIGSINNI-PE
TS-M567-1 H-2K^d RSV M2 Tetramer-SYIGINNI-PE
TS-M555-1 H-2K^d RSV F glycoprotein Tetramer-KYKNAVTEL-PE

Foreign antigen

TS-5001-1C H-2K^b OVA Tetramer-SIINFEKL-PE
TS-M008-1 H-2K^b Negative (SIY) Tetramer-SIYRYYGL-PE
TS-M525-1 H-2K^d EGFP Tetramer-HYLSTQSAL-PE
TS-M511-1 H-2L^d β-galactosidase Tetramer-TPHPARIGL-PE

Bacteria

TS-M503-1 H-2K^d Listeria LLO Tetramer-GYKDGNEYI-PE
TS-M515-1 H-2K^d malaria Tetramer-SYIPSAEKI-PE
TS-M547-1 H-2K^d Plasmodium CSP Tetramer-SYVPSAEQI-PE
TS-M517-1 H-2D^d BCG MPT51 Tetramer-GGPHAVYLL-PE

Others

TS-M552-1 H-2K^d IGRP Tetramer-VYLKTNVFL-PE
TS-M553-1 H-2K^d NRP-V7 Tetramer-KYNKANVFL-PE
TS-M554-1 H-2K^d InsB Tetramer-LYLVCGERL-PE

MHC Class II Tetramers

TS-M704-1 I-A^b MOG₃₅₋₅₅ Tetramer-PE
TS-M705-1 I-A^b FMLV₁₂₃₋₁₄₁ Tetramer-PE
TS-M706-1 I-A^b Eα₅₂₋₆₈ Tetramer-PE
TS-M707-1 I-A^b ESAT-6₁₋₂₀ Tetramer-PE
TS-M710-1 I-A^b OVA₃₂₃₋₃₃₉ Tetramer-PE

CD1d Tetramers

TS-MCD-1 Mouse CD1d Tetramer-PE

Kit

AM-1005M IMMUNOCYTO Cytotoxicity Detection Kit

Others

D341-4 mouse CD4-FITC (GK1.5)
D271-4 mouse CD8-FITC (KT15)
K0221-5 anti-mouse TCR DO11.10-PE (KJ1.26)
K0222-3 anti-mouse TCR 3D7-52.5 (KJ12.98)
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.