

CMV (IE2) Peptide Pool

Cytomegalovirus (immediate early protein 2) peptide pool for immune cell activation

Catalog #100-1412

~25 µg (15 nmol)/peptide



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Product Description

CMV (IE2) Peptide Pool is a lyophilized mixture of 143 peptides from immediate early protein 2 (IE2) of human cytomegalovirus (CMV; strain AD169). The pool consists of 15-mer peptides with 11-amino-acid overlaps that cover amino acids 1 - 580 on IE2. IE2 is critical for viral infection and the expression of CMV early genes (Marchini et al.). It also controls transcription initiation of a subset of early-late and late viral promoters via RNA polymerase II (Li et al.). IE2, along with IE1, may contribute to the survival of CMV-infected cells by blocking tumor necrosis factor alpha (TNF- α)-induced apoptosis (Zhu et al.). One unit of this product (i.e. ~25 µg/peptide) is sufficient for stimulating 2.5×10^8 cells.

APPLICATIONS

- Antigen-specific T cell stimulation
- Cellular immune response
- Immune monitoring
- T cell assays
- T cell expansion

Product Information

Number of Peptides: 143

Source: Human cytomegalovirus (strain AD169) (also known as human herpesvirus 5 [HHV-5])

Accession Number: P19893

Protein Name: Immediate-early protein 2 (IE2); Viral transcription factor IE2

Protein Sequence: MESSAKRKMDPDNDPDEGPSSKVP RPETPVTKATTF LQ TMLRKEVNSQLSLGDP LFP ELAEESLKT FEQVTE
CNENPEKDV LAELGDILAQAVNHAGIDSSSTGPTLTTHSCSVSSAPLNKPTPTSVAVTNTPLPGASATPELSPRKKP
RKTRPFKVIKPPVPPAPIMPLIKQEDIKPEPDTIQYRNKIIDTAGCIVISDSEEEQGEEVETR GATASSPSTGSGTP
RVTSPTHPLSQMNHPPLPDPLGRPDEDSSSSSSSSCSSASDSESESEEMKCSSGGGASVTSSHHRGGFGGAAS
SSLLSCGHQSSGGASTGPRKKKSKRIE LDNEKVRNIMKDKNTPFCTPNVQTRRGRVKIDEVSRMFRNTNRSLEYK
NLPFTIPSMHQVLDEAIKACKTMQVNNKGIIYTRNHEVKSEVDVRCRLGTM CNLALSTPFLMEHTMPVTHPPEV
AQRTADACNEGKAAWSL KELHTHQLCPRSSDYRNMIHAATPVDLLGALNLCLPLMQKFPKQVMVRIFSTNQGG
FMLPIYETAAKAYAVGQFEQPTETPPEDLDTLSLAIEAAIQDLRNKSQ

Gene Name: UL122

Purity: Average 70%

Formulation: Lyophilized as trifluoroacetate salts

Preparation and Storage

Storage: Store at -20°C.

Stability: Stable as supplied until expiry date (EXP) on label.

Preparation: Warm to room temperature (15 - 25°C) before reconstitution. Add pure dimethyl sulfoxide (DMSO; ~40 µL) and dilute with water to the desired concentration. Final concentration of DMSO must be below 1% (v/v) to avoid toxicity in the biological system. If not used immediately, aliquot and store at -20°C. Protect from light. Avoid repeated freeze-thaw cycles.

Related Products

For a complete list of peptide pools, as well as related products available from STEMCELL Technologies, visit www.stemcell.com, or contact us at techsupport@stemcell.com.

References

- Li M et al. (2020) Human cytomegalovirus IE2 drives transcription initiation from a select subset of late infection viral promoters by host RNA polymerase II. *PLoS Pathog* 16(4): e1008402.
- Marchini A et al. (2001) Human cytomegalovirus with IE-2 (UL122) deleted fails to express early lytic genes. *J Virol* 75(4): 1870–8.
- Zhu H et al. (1995) Human cytomegalovirus IE1 and IE2 proteins block apoptosis. *J Virol* 69(12): 7960–70.

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