CMV (IE1) Peptide Pool

Cytomegalovirus (immediate early protein IE1) peptide pool for immune cell activation

Catalog #100-1413 ~25 µg (15 nmol)/peptide

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Product Description

CMV (IE1) Peptide Pool is a lyophilized mixture of 120 peptides from the immediate early protein IE1 (IE1) of human cytomegalovirus (CMV; strain AD169). The pool consists of 15-mer peptides with 11-amino-acid overlaps that cover amino acids 1 - 491 on IE1. CMV IE1 is a transcriptional transactivator and autoregulator (Cherrington & Mocarski). IE1 has been found to promote viral transcription by antagonizing histone deacetylation (Nevels et al.); and, along with IE2, it 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 x 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:	120
Source:	Human cytomegalovirus (strain AD169) (also known as human herpesvirus 5 [(HHV-5])
Accession Number:	P13202
Protein Name:	Immediate-early protein 1 (IE1)
Protein Sequence:	MESSAKRKMDPDNPDEGPSSKVPRPETPVTKATTFLQTMLRKEVNSQLSLGDPLFPELAEESLKTFEQVTED CNENPEKDVLAELVKQIKVRVDMVRHRIKEHMLKKYTQTEEKFTGAFNMMGGCLQNALDILDKVHEPFEEMKCIG LTMQSMYENYIVPEDKREMWMACIKELHDVSKGAANKLGGALQAKARAKKDELRRKMMYMCYRNIEFFTKNSAF PKTTNGCSQAMAALQNLPQCSPDEIMAYAQKIFKILDEERDKVLTHIDHIFMDILTTCVETMCNEYKVTSDACMMT MYGGISLLSEFCRVLCCYVLEETSVMLAKRPLITKPEVISVMKRRIEEICMKVFAQYILGADPLRVCSPSVDDLRAIAE ESDEEEAIVAYTLATAGVSSSDSLVSPPESPVPATIPLSSVIVAENSDQEESEQSDEEEEEGAQEEREDTVSVKSEPVS EIEEVAPEEEEDGAEEPTASGGKSTHPMVTRSKADQ
Gene Name:	UL123
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

Cherrington JM & Mocarski ES (1989). Human cytomegalovirus ie1 transactivates the alpha promoter-enhancer via an 18-base-pair repeat element. J Virol 63(3): 1435–40.

Nevels M et al. (2004) Human cytomegalovirus immediate-early 1 protein facilitates viral replication by antagonizing histone deacetylation. Proc Natl Acad Sci USA 101(49): 17234–39.

Zhu H et al. (1995) Human cytomegalovirus IE1 and IE2 proteins block apoptosis. J Virol 69(12): 7960–70.