

# CMV (UL44) Peptide Pool

## Cytomegalovirus (UL44) peptide pool for immune cell activation

Catalog #100-1405

~25 µg (15 nmol)/peptide



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## Product Description

CMV (UL44) Peptide Pool is a lyophilized mixture of 106 peptides from DNA polymerase processivity factor UL44 of human cytomegalovirus (CMV; strain AD169). The pool consists of 15-mer peptides with 11-amino-acid overlaps that cover amino acids 1 - 433 on UL44. UL44 contains a nuclear localization signal (Alvisi et al.) and may bind DNA directly or form a C clamp partially surrounding it similar to proliferation cell nuclear antigen (PCNA) (Appleton et al.). UL44 has also been found to interact with viral (Kim & Ahn) and host (Strang et al.) proteins that contribute to viral DNA replication and efficient viral growth. One unit of this product (i.e. ~25 µg/peptide) is sufficient for stimulating  $2.5 \times 10^8$  cells.

### APPLICATIONS

- T cell immunity

## Product Information

Number of Peptides: 106

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

Accession Number: P16790

Protein Name: DNA polymerase processivity factor; ICP36; UL44

Protein Sequence: MDRKTRLSEPPTLALRLKPYKTAIQQLRSVIRALKENTTVTFLPTPSLILQTVRSHCVSKITFNSSCLYITDKSFQ  
PKTINNSTPLLGNFMYLTSSKDLTKFYVQDISDLSAKISMCAPDFNMEFSSACVHGQDIVRESENSAVHVDLDFGVV  
ADLLKWIGPHTRVKRNVKKAPCPTGTGTVQILVHAGPPAIKFILTNNGSELEFTANNRVSFHGVKNMRINVQLKNFYQTL  
LNCAVTKLPCTLRIVTEHDTLLYVASRNLFAVENFLTEEPFQRGDPFDKNYVGNISGKSRGGGGGGGSLSSLANA  
GGLHDDGPGLDNDLMNEPMGLGGLGGGGGGGKKHDRGGGGGSGTRKMSSGGGGGDHHDHGLSSKEYEQ  
HKITSYLTSGGGGGGGGGGGLDRNSGNYFNDAKEESDSSESVT FEFVPNTKKQKCG

Gene Name: UL44

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](http://www.stemcell.com), or contact us at [techsupport@stemcell.com](mailto:techsupport@stemcell.com).

## References

- Alvisi G et al. (2005) A protein kinase CK2 site flanking the nuclear targeting signal enhances nuclear transport of human cytomegalovirus ppUL44. *Traffic* 6(11): 1002–13.
- Appleton BA et al. (2004) The cytomegalovirus DNA polymerase subunit UL44 forms a C clamp-shaped dimer. *Mol Cell* 15(2): 233–44.
- Kim YE & Ahn JH. (2010) Role of the specific interaction of UL112-113 p84 with UL44 DNA polymerase processivity factor in promoting DNA replication of human cytomegalovirus. *J Virol* 84(17): 8409–21.
- Strang BL et al. (2010) Nucleolin associates with the human cytomegalovirus DNA polymerase accessory subunit UL44 and is necessary for efficient viral replication. *J Virol* 84(4): 1771–84.

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