

CE-Peptide Pool HLA-A24

Catalog #: CTL-CEF-003 or PA-CEF-003

Lot: _____

Product: CE-Peptide-Pool HLA-A24

Formulation: Each vial contains a total of 160µg lyophilized peptide powder consisting of 8 individual peptides at 20µg peptides each. **Remark:** The filling height in between vials of the same lot varies due to the lyophilization process. This does neither alter the functionality of the product, nor the amounts of peptides are different.

Lot specific QC: Available on request

Description: The pool contains 8 HLA-A24 restricted T-cell epitopes from human Cytomegalovirus and Epstein-Barr virus. The CE-Pool stimulates the release of IFN-γ from CD8+ T-cells in individuals with the HLA-A24 type. The CE Peptide Pool is useful as a **peptide specific positive control** in ELISPOT, CTL and intracellular Cytokine Assays using human PBMC.

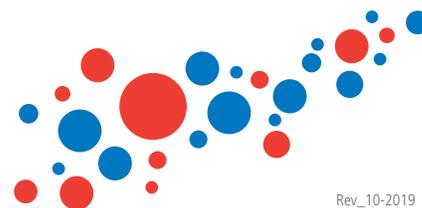
Recommended Use: The CMV-Control Peptide Pool is recommended as the positive control for detecting antigen-specific CD8+ cells in human PBMC, for example, when performing cytokine assays for immune monitoring purposes. Such assays include IFN-γ measurements by ELISPOT and intracytoplasmic cytokine staining (ICS), for accurate frequency measurements of the cytokine producing CD8 cells, or cytokine bead arrays (CBA), and ELISA, for a semi-quantitative read out.

Instruction for Use: **Stock solution:** Flick tube to ensure all powder is at the bottom of the tube. Add 10µl tissue culture grade DMSO followed by 40µl of sterile double distilled water. Vortex briefly and watch sterile handling! Add 450µl of tissue culture grade PBS and vortex briefly. Flick tube to ensure that all liquid is at the bottom of the tube. The stock solution is ready for use. This stock solution (500µl, 20x) contains each peptide at 40µg/ml concentration. The stock can be stored at 4°C for one week. CTL recommends to aliquot and store the stock solution at -20°C to -80°C for long-term storage.

Use peptide pool at 2µg/ml of final peptide concentration, that is at 1:20 dilution of the stock. For example, prepare a 1:10 dilution of the stock in tissue culture medium as the working solution, and add it 1+1 (v/v) to the medium containing the PBMC. For ELISPOT assays we recommend plating 100µl of this 2x peptide working solution per well, directly into the ELISPOT plate, followed by adding the 100µl of the PBMC for a 24h assay duration. For exact frequency measurements, we recommend testing in triplicate. Because serum is the greatest variable in assay performance, we recommend the use of serum-free media at all steps of the assay. CTL offers such serum-free media (CTLT-005) that has been customized for low background/high signal performance with PBMC. Investigators are advised to determine optimal cell concentration for individual applications



Product Data Sheet



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for ELISPOT and related cytokine assays it is between 100,000 and 800,000 PBMC per well. CTL recommends 300,000 per well. MHC class I restricted peptides induce maximal CD8 cells stimulation when added 1 + 1 (vol + vol) to the PBMC.

Storage: In lyophilized powder form refrigerated at 4°C. The stock solution can be stored at 4°C for one week; however, aliquoted and stored frozen at -20° to -80°C is more suitable for long-term storage.

Contained peptides: RYSIFFDY (EBV EBNA-D3 TYGPVFMCL (EBV LMP-2), TYSAGIVQI (EBV EBNA-D3 TYPVLEEMF (EBV BRLF-1), DYNFVKQLF (EBV BMLF-1), QYDPVAALF (CMV pp65), VYALPLKML (CMV pp65), DYC NVLNKEF (EBV Rta 28-7)

References: 1. Immunol Lett. 2002 Aug 1;83(1):21-0. Identification of HLA-A24-restricted CTL epitope encoded by the matrix protein pp65 of human cytomegalovirus. Akiyama Y, Maruyama K, Mochizuki T, Sasaki K, Takaue Y, Yamaguchi K.
2. Viral Immunol. 2001;14(4):369-77. Identification of the HLA-A24 peptide epitope within cytomegalovirus protein pp65 recognized by CMV-specific cytotoxic T lymphocytes. Masuoka M, Yoshimuta T, Hamada M, Okamoto M, Fumimori T, Honda J, Oizumi K, Itoh K.

For laboratory research use only. Not for use in diagnostic or therapeutic procedures.