

CEF Control Peptide Pools for ELISPOT Assays

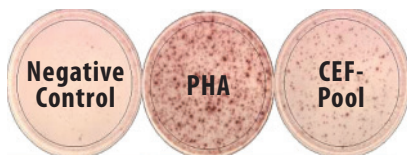
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Joining Peptide Know-how with Immunological Expertise

International Version

HLA Restricted T Cell Epitopes

PANATecs offers four different CEF (Cytomegalovirus, Epstein-Barr Virus, Influenza Virus) control peptide pools containing HLA (human leukocyte antigen) or HLA-A2 class I restricted T cell epitopes from human cytomegalovirus, Epstein-Barr virus and influenza virus. The CEF control peptide pools stimulate the release of IFN- γ from CD8⁺ T cells in individuals being HLA/HLA-A2 positive. Each pool is useful as a peptide specific positive control in ELISPOT, cytotoxic T lymphocyte (CTL) and intracellular cytokine assays using human peripheral blood mononuclear cells (PBMC).



Typically phytohemagglutinin (PHA) has been used as a positive control for ELISPOT assays. But PHA spots can vary widely in size, intensity and shape with a rather patchy occurrence. Due to the high spot number per well, they also can be confluent. Furthermore PHA is known for losing its activity rather fast during storage which can result in ineffective IFN- γ production and unclearly defined spots. Finally PHA and other mitogens such as PMA and ionomycin do not test antigen-specific T cell receptor driven T cell activation. The CEF peptide pools circumvent these problems. The pools stimulate only CD8⁺ cells and depletion of CD8 cells ablates the response, providing a suitable control for the adequacy of CD8 T cell depletion.

More Information? Please visit

www.axxora.com

CEF Control Peptide Pool HLA Class I

PT-PA-CEF-001-1

1 Vial

Pool of 23 HLA class I restricted T cell epitopes from human cytomegalovirus, Epstein-Barr virus and influenza virus. Stimulates the release of IFN- γ from CD8⁺ T cells in individuals with certain highly frequent HLA types (HLA: A1, A2, A3, A11, A24, A68, B7, B8, B27, B35, B44). Chosen epitopes are presented by the most common Caucasian HLA types, whose cumulative frequencies represent >100% of Caucasian individuals. The 23 peptides cover 11 HLA types. Useful as a peptide specific positive control in ELISPOT, CTL and intracellular cytokine assays using human PBMC [1].

LIT: [1] A panel of MHC class I restricted viral peptides for use as a quality control for vaccine trial ELISPOT assays: J.R. Currier, et al.; J. Immunol. Methods **260**, 157 (2002)

NEW CEF Control Peptide Pool HLA Class I (Plus)

PT-PA-CEF-002-1

1 Vial

Pool of 32 HLA class I restricted T cell epitopes from human cytomegalovirus, Epstein-Barr virus and influenza virus. Stimulates the release of IFN- γ from CD8⁺ T cells in individuals with certain highly frequent HLA types (HLA: A1, A2, A0201, A3, A11, A24, A68, A6081, B7, B8, B18, B27, B35, B44, B0702). The 32 peptides cover 15 HLA types. **Pool used by the NIH [1];** based on the original peptide pool described by Currier, et al. [2] with additional nine peptides. Useful as a peptide specific positive control in ELISPOT, CTL and intracellular cytokine assays using human PBMC.

LIT: [1] CEF Control Peptide Pool: http://www.aidsreagent.org/UploadDocs/9808_001.pdf • [2] A panel of MHC class I restricted viral peptides for use as a quality control for vaccine trial ELISPOT assays: J.R. Currier, et al.; J. Immunol. Methods **260**, 157 (2002)

NEW CE Control Peptide Pool HLA-A24

PT-PA-CEF-003-1

1 Vial

Pool of 8 HLA-A24 restricted T cell epitopes from human cytomegalovirus and Epstein-Barr virus. Stimulates the release of IFN- γ from CD8⁺ T cells in individuals being HLA-A24 positive. The HLA type A24 is especially **dominant in Japan**. Useful as a peptide-specific positive control in ELISPOT, CTL and intracellular cytokine assays using human PBMC.

LIT: Identification of the HLA-A24 peptide epitope within cytomegalovirus protein pp65 recognized by CMV-specific cytotoxic T lymphocytes: M. Masuoka, et al.; Viral Immunol. **14**, 369 (2001) • Five new cytotoxic T cell epitopes identified within Epstein-Barr virus nuclear antigen 3: S.R. Burrows, et al.; J. Gen. Virol. **75** (Pt9), 2489 (1994) • Mapping the HLA-A24-restricted T-cell epitope peptide from a tumour-associated antigen HER2 / neu: possible immunotherapy for colorectal carcinomas: H. Tanaka, et al.; Br. J. Cancer **84**, 94 (2001) • Identification of HLA-A2- or HLA-A24-restricted CTL epitopes possibly useful for glypican-3-specific immunotherapy of hepatocellular carcinoma: H. Komori, et al.; Clin. Cancer Res. **12**, 2689 (2006) • For a comprehensive bibliography please visit our website.

CEF Control Peptide Pool HLA-A2

PT-PA-CEF-004-1

1 Vial

Pool of 5 HLA-A2 restricted T cell epitopes from human cytomegalovirus, Epstein-Barr virus and influenza virus. Stimulates the release of IFN- γ from CD8⁺ T cells in individuals being HLA-A2 positive. Useful as a peptide specific positive control in ELISPOT, CTL and intracellular cytokine assays using human PBMC.

LIT: Recognition of influenza A matrix protein by HLA-A2-restricted cytotoxic T lymphocytes. Use of analogues to orientate the matrix peptide in the HLA-A2 binding site: F. Gotch, et al.; J. Exp. Med. **168**, 2045 (1988) • A panel of MHC class I restricted viral peptides for use as a quality control for vaccine trial ELISPOT assays: J.R. Currier, et al.; J. Immunol. Methods **260**, 157 (2002) • For a comprehensive bibliography please visit our website.

Antibodies

MAB to HLA-B/HLA-C (human) (TH4)

PT-PA-MAB-003-1

100 μ g

CLONE: TH4. **ISOTYPE:** Mouse IgG2a. **SPECIFICITY:** Recognizes human HLA-B and HLA-C. **APPLICATION:** FC, IHC.

LIT: Direct identification of major histocompatibility complex class I-bound tumor-associated peptide antigens of a renal carcinoma cell line by a novel mass spectrometric method: T. Flad, et al.; Cancer Res. **58**, 5803 (1998)

MAB to HLA-DQ (human) (TU22)

PT-PA-MAB-001-1

100 μ g

CLONE: TU22. **ISOTYPE:** Mouse IgG2. **SPECIFICITY:** Recognizes human HLA-DQ. Does not cross-react with human HLA-DR and HLA-DP. **APPLICATION:** FC, ICC, IHC.

LIT: Dissection of human allostimulatory determinants with cloned T cells: stimulation inhibition by monoclonal antibodies TU22, 34, 35, 36, 37, 39, 43, and 58 against distinct human MHC class II molecules: G. Pawelec, et al.; Hum. Immunol. **12**, 165 (1985) • For a comprehensive bibliography please visit our website.