

CMV Dextramer® (ASR)

Forms:

HLA-A*0101 / VTEHDTLLY / PE HLA-A*0201 / NLVPMVATV / PE HLA-A*0301 / KLGGALQAK / PE HLA-A*2402 / QYDPVAALF / PE HLA-B*0702 / RPHERNGFTVL / PE HLA-B*0702 / TPRVTGGGAM / PE HLA-B*0801 / ELRRKMMYM / PE HLA-B*3501 / IPSINVHHY / PE Cat. No. WA02131A PE 50 Cat. No. WB02132A PE 50 Cat. No. WC02197A PE 50 Cat. No. WF02133A PE 50 Cat. No. WH02135A PE 50 Cat. No. WH02136A PE 50 Cat. No. WI02137A PE 50 Cat. No. WK02138A PE 50

Analyte specific reagent. Analytical and performance characteristics are not established.

Specificity: CMV Dextramer reagents react with T cell receptors on human CD8⁺ T cells restricted by the HLA allele of the Dextramer and specific for the CMV peptide displayed.

Reagent provided: CMV Dextramers comprise dextran polymer backbone carrying multiple fluorochrome molecules (PE) and multiple MHC-peptide complexes displaying a peptide epitope from a CMV antigen.

CMV Dextramer reagents are provided in liquid form in volumes of 0,5 ml in buffer containing 1% bovine serum albumin (BSA) and 15 mmol/L NaN, pH 7.2.

10 μ L conjugate is enough to stain 1x10⁶ HPBMC.

Antigen description and distribution:

Cytomegalovirus (CMV) is a herpes virus that infects 50-85% of the adult population and remains latent in healthy individuals through control by the presence of CMV-specific T cells.

Reactivation of CMV is a frequently occurring complication of immunosuppression in transplant patients and other immune suppressed individuals and can significantly contribute to morbidity and mortality if the virus is not controlled.

CMV-specific CD8⁺ T cells play a critical role in suppressing CMV reactivation. In healthy individuals equilibrium is achieved where CMV-specific T cells control the persisting virus. When T cell function is impaired and equilibrium is not established, viral reactivation and clinical disease may develop.

Detection of CMV-specific CD8⁺ T cells requires recognition of the T-cell receptor (TCR) by a unique combination of a MHC class I molecule coupled with a CMV-specific peptide. CMV-specific TCR's on the surface of CD8⁺ T cells are recognized by complementary CMV Dextramers.

Storage and precautions: Always keep CMV Dextramers stored at 2-8°C in the dark. The brown plastic vial does not protect the reagent sufficiently against light.

CMV Dextramers contain sodium azide (NaN₃), a chemical highly toxic in pure form. At product concentrations, though not classified as hazardous, sodium azide may react with lead and copper plumbing to form highly explosive build-ups of metal azides. Upon disposal, flush with large volumes of water to prevent metal azide build-up in plumbing.

All materials should be disposed of according to your institution's guidelines for hospital waste disposal.

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