

Biotinylated Human HLA-A*02:01&B2M&CMVpp65 (NLVPMVATV) Monomer Protein



Cat. No. MHC-HE013B

Description

Source	Recombinant Biotinylated Human HLA-A*02:01&B2M&CMVpp65 (NLVPMVATV) Monomer Protein is expressed from E.coli with His tag and Avi tag at the C-terminus. It contains Gly25-Thr305 (HLA-A*02:01), Ile21-Met119 (B2M) and NLVPMVATV peptide.
Accession	A0A140T913(HLA-A*02:01)&P61769(B2M)&NLVPMVATV
Molecular Weight	The protein has a predicted MW of 35.6 kDa (HLA-A*02:01) and 11.9 kDa (B2M) same as Bis-Tris PAGE result.
Endotoxin	Less than 1 EU per µg by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

Formulation and Storage

Formulation	Lyophilized from 0.22 µm filtered solution in 20mM Tris, 200mM NaCl (pH 8.0). Normally 8% mannitol is added as protectant before lyophilization.
Reconstitution	Dissolve the lyophilized protein in distilled water. Please refer to the Certificate of Analysis for detailed instructions.
Storage	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

Background

Human cytomegalovirus (CMV), a β -herpes virus with a double-stranded DNA, infects a wide variety of cells and establishes latency in the host. CMVpp65, a tegument protein of the herpes virus CMV, is the main viral antigen found in peripheral blood mononuclear cells (PBMCs) after viral infection and may activate cell-mediated immunity, accounting for 70-90% of the cytotoxic CD8+ T cells' (CTLs) response to CMV. Among the pp65-derived CTL epitope peptides, the 9-mer peptide 495NLVPMVATV503 (CMVpp65 495-503 peptide) is the most immunogenic T cell epitope predominantly displayed on HLA-A*02:01, the most common MHC-I allele in the population.

Assay Data

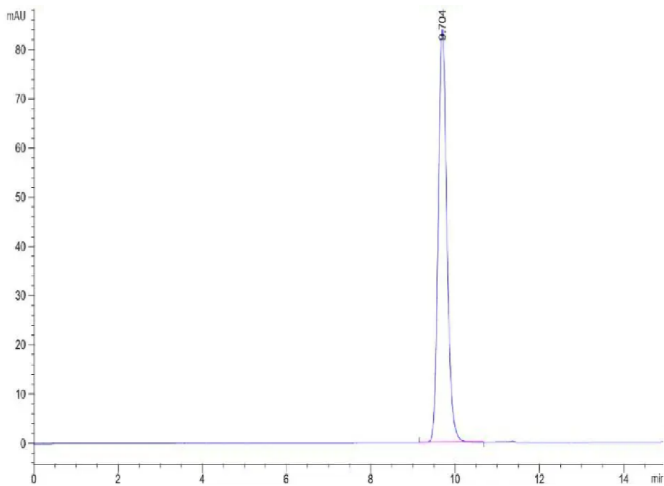
Bis-Tris PAGE



Biotinylated Human HLA-A*02:01&B2M&CMVpp65 (NLVPMVATV) Monomer on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

SEC-HPLC

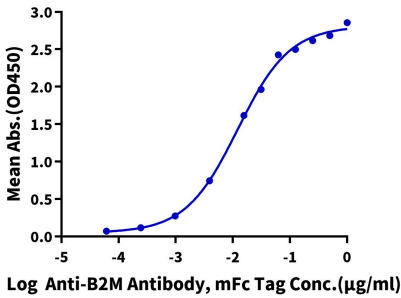
Assay Data



The purity of Biotinylated Human HLA-A*02:01&B2M&CMVpp65 (NLVPMVATV) Monomer is greater than 95% as determined by SEC-HPLC.

ELISA Data

Biotinylated HLA-A*02:01&B2M&CMVpp65 (NLVPMVATV) Monomer, His Tag ELISA
0.1µg Biotinylated HLA-A*02:01&B2M&CMVpp65 (NLVPMVATV) Monomer, His Tag Per Well



Immobilized Biotinylated HLA-A*02:01&B2M&CMVpp65 (NLVPMVATV) Monomer, His Tag at 1µg/ml(100µl/well) on the streptavidin precoated plate (5µg/ml). Dose response curve for Anti-B2M Antibody, mFc Tag with the EC50 of 12.1ng/ml determined by ELISA.