

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



Cat. No. MHC-HE013

Description

Source	Recombinant 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 1EU per µg by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

Formulation and Storage

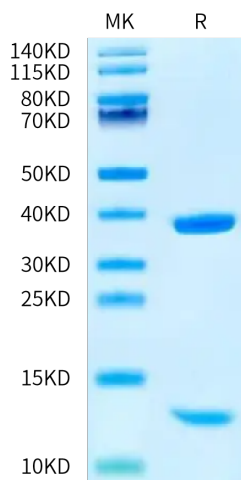
Formulation	Supplied as 0.22 µm filtered solution in 20mM Tris, 200mM NaCl (pH 8.0).
Storage	Valid for 12 months from date of receipt when stored at -80°C. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

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.

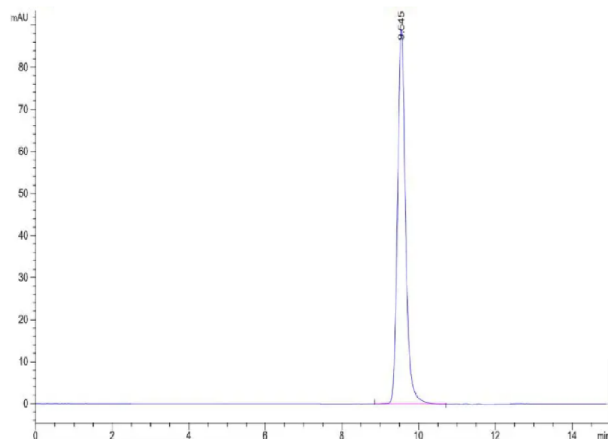
Assay Data

Bis-Tris PAGE



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

SEC-HPLC



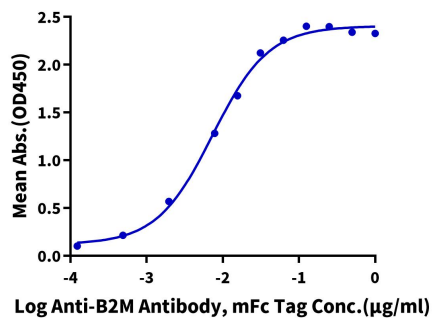
The purity of Human HLA-A*02:01&B2M&CMVpp65 (NLVPMVATV) Monomer is greater than 95% as determined by SEC-HPLC.

Assay Data

ELISA Data

Human HLA-A*02:01&B2M&CMVpp65 (NLVPMVATV) Monomer, His Tag ELISA

0.05µg Human HLA-A*02:01&B2M&CMVpp65 (NLVPMVATV) Monomer, His Tag Per Well



Immobilized Human HLA-A*02:01&B2M&CMVpp65 (NLVPMVATV) Monomer, His Tag at 0.5µg/ml (100µl/well) on the plate. Dose response curve for Anti-B2M Antibody, mFc Tag with the EC50 of 7.3ng/ml determined by ELISA.