Data Sheet (Cat.No.TMPK-01806)

TargetMol

HLA-A*02:01&B2M&CMV pp65 (NLVPMVATV) Monomer Protein, Human, MHC (E. coli, His & Avi)

General Information

Synonyms: CMVpp65;NLVPMVATV

Protein Construction: Gly25-Thr305 (HLA-A*02:01), Ile21-Met119 (B2M) and NLVPMVATV peptide

Species: Human

Expression Host: E. coli

Accession: A0A140T913(HLA-A*02:01)&P61769(B2M)&NLVPMVATV

Molecular Weight: 35.6 kDa (HLA-A*02:01) and 11.9 kDa (B2M)

QC Testing

Biological Activity: Immobilized Human HLA-A*02:01&B2M&CMV pp65 (NLVPMVATV) Monomer, His Tag at 0.5 μg/ml (100 μl/well) on the plate. Dose response curve for Anti-B2M Antibody, mFc Tag with the EC50 of 7.3 ng/ml determined by ELISA.

Purity: > 95% as determined by Bis-Tris PAGE; > 95% as determined by HPLC

Endotoxin: < 1 EU/μg of the protein as determined by the LAL method.

Formulation: Supplied as 0.22 μm filtered solution in 20 mM Tris, 200 mM NaCl (pH 8.0).

Preparation and Storage

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein 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.

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