Data Sheet (Cat.No.TMPK-01419)

Peptide Ready HLA-A*03:01&B2M Monomer Protein, Human, MHC (His & Avi), Biotinylated

General Information

Synonyms:	MHC;HLA-A*02:01;Peptide Ready
Protein Construction:	Gly25-Thr305(HLA-A*03:01) and Ile21-Met119(B2M)
Species:	Human
Expression Host:	HEK293 Cells
Accession:	NP_002107.3(HLA-A*03:01)&P61769(B2M)
Molecular Weight:	The protein has a predicted MW of 48.40 kDa. Due to glycosylation, the protein migrates to 50-60 kDa based on Tris-Bis PAGE result.

QC Testing

Biological Activity:	Immobilized Biotinylated Human Peptide Ready HLA-A*03:01&B2M Monomer, His Tag at 0.5 μg/ml (100μl/well) on the streptavidin precoated plate(5μg/ml). Dose response curve for Anti-HLA class I (W6/32) Antibody, hFc Tag with the EC50 of 7.1ng/ml determined by ELISA.
Purity:	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Supplied as 0.22 μm filtered solution in PBS (pH 7.4).

Preparation and Storage

Stability & Storage:

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:

Proteins are shipped with blue ice.

Protein Background

Peptide Ready HLA-A*03:01&B2M Monomer is absent from peptide, namely peptide-receptive MHC. It can be loaded with antigenic peptides matching HLA-A*03:01. Peptide ready MHC molecules comprising human HLA alleles and B2M, which can be readily tetramerized and loaded with peptides of choice in a high-throughput manner.

Reference

Moritz A, et al. High-throughput peptide-MHC complex generation and kinetic screenings of TCRs with peptide-receptive HLA-A*02:01 molecules. Sci Immunol. 2019 Jul 19;4(37):eaav0860.

Sun Y, et al. Universal open MHC-I molecules for rapid peptide loading and enhanced complex stability across HLA allotypes. bioRxiv [Preprint]. 2023 Mar 18:2023.03.18.533266.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481