

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

### General Information

Synonyms:	MHC;Peptide Ready;HLA-E*01:03
Protein Construction:	Gly25-Ile305(HLA-E*01:03) and Ile21-Met119(B2M)
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P13747(HLA-E*01:03)&P61769(B2M)
Molecular Weight:	The protein has a predicted MW of 48.30 kDa. Due to glycosylation, the protein migrates to 50-60 kDa based on Tris-Bis PAGE result.

### QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
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:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS (pH 7.4). Typically, 8% trehalose is incorporated as a protective agent before lyophilization.

### Preparation and Storage

#### Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

#### 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:

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

### Protein Background

HLA-E\*01:03&B2M&Peptide ready Monomer is absent from peptide, namely peptide-receptive MHC. It can be loaded with antigenic peptides matching HLA-E\*01:03. 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.

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