

Biotinylated Human HLA-E*01:03&B2M&Peptide (VMAPRTLVL) Tetramer Protein



Cat. No. MHC-HM406TB

Description

Source Recombinant Biotinylated Human HLA-E*01:03&B2M&Peptide (VMAPRTLVL) Tetramer Protein is expressed from HEK293 with His tag and Avi tag at the C-Terminus, tetramer is assembled by biotinylated monomer and streptavidin.

It contains Gly22-Thr302(HLA-E*01:03), Ile21-Met119(B2M) and VMAPRTLVL peptide.

Accession P13747(HLA-E*01:03)&P61769(B2M)&VMAPRTLVL

Molecular Weight The protein has a predicted MW of 258 kDa. Due to glycosylation, the protein migrates to 260-265 kDa under Non reducing (N) condition based on 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 Lyophilized from 0.22 μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.

Reconstitution Centrifuge the tube before opening. Reconstituting to a concentration more than 100 $\mu\text{g}/\text{ml}$ is recommended. Dissolve the lyophilized protein in distilled water.

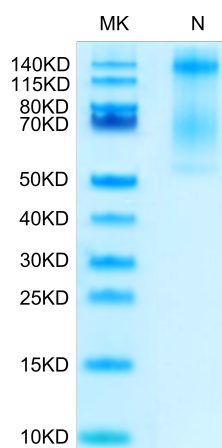
Storage -20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

Background

HLA-E is a nonclassical member of the major histocompatibility complex class I gene locus. HLA-E protein shares a high level of homology with MHC Ia classical proteins: it has similar tertiary structure, associates with $\beta 2$ -microglobulin, and is able to present peptides to cytotoxic lymphocytes. The main function of HLA-E under normal conditions is to present peptides derived from the leader sequences of classical HLA class I proteins, thus serving for monitoring of expression of these molecules performed by cytotoxic lymphocytes.

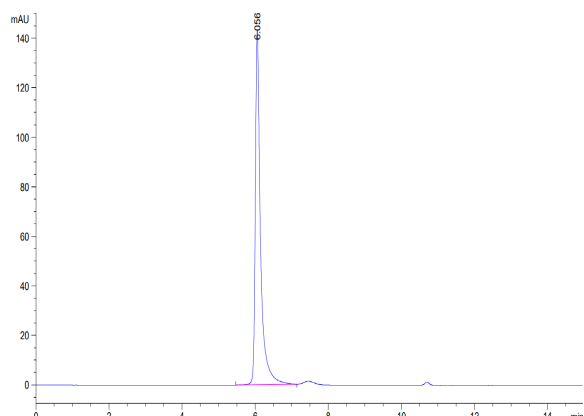
Assay Data

Bis-Tris PAGE



Biotinylated Human HLA-E*01:03&B2M&Peptide (VMAPRTLVL) Tetramer on Bis-Tris PAGE under Non reducing (N) condition. The purity is greater than 95%.

SEC-HPLC



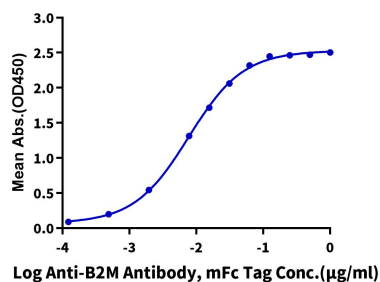
The purity of Biotinylated Human HLA-E*01:03&B2M&Peptide (VMAPRTLVL) Tetramer is greater than 95% as determined by SEC-HPLC.

Assay Data

ELISA Data

Biotinylated Human HLA-E*01:03&B2M&Peptide (VMAPRTLVL) Tetramer, His Tag ELISA

0.05µg Biotinylated Human HLA-E*01:03&B2M&Peptide (VMAPRTLVL) Tetramer, His Tag Per Well

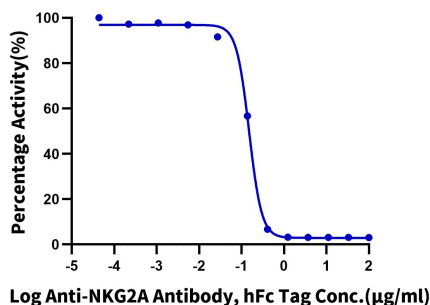


Immobilized Biotinylated Human HLA-E*01:03&B2M&Peptide (VMAPRTLVL) Tetramer, His Tag at 0.5µg/ml (100µl/Well) on streptavidin (5µg/ml) precoated plate. Dose response curve for Anti-B2M Antibody, mFc Tag with the EC50 of 7.7ng/ml determined by ELISA (QC Test).

Blocking Data

Inhibition of Human NKG2A&CD94 and HLA-E Tetramer Binding

0.2µg Human NKG2A&CD94, mFc Tag Per Well



Serial dilutions of Anti-NKG2A Antibody were added into Biotinylated Human HLA-E*01:03&B2M&Peptide (VMAPRTLVL) Tetramer, His Tag : Human NKG2A&CD94, mFc Tag binding reactions. The half maximal inhibitory concentration (IC50) is 0.15µg/ml.