

Unconjugated Human HLA-E*01:03 & B2M Monomer Protein (Peptide free, MALS verified)

Catalog # HLM-H52E5



BIOSYSTEMS
Acro

Surprise Inside!

Synonym

HLA-E*0103 & B2M

Source

Unconjugated Human HLA-E*01:03 & B2M Monomer Protein (HLM-H52E5) is expressed from human 293 cells (HEK293). It contains AA Gly 22 - Ile 305 (HLA-E*01:03) & Ile 21 - Met 119 (B2M) (Accession # [P13747](#) (HLA-E*01:03) & [P61769-1](#) (B2M)).

Predicted N-terminus: Gly 22 & Ile 21

Molecular Characterization

This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag™), and it is not biotinylated. The protein has a calculated MW of 36.2 kDa and 11.7 kDa. The protein migrates as 39-43 kDa and 10 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

Purity

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

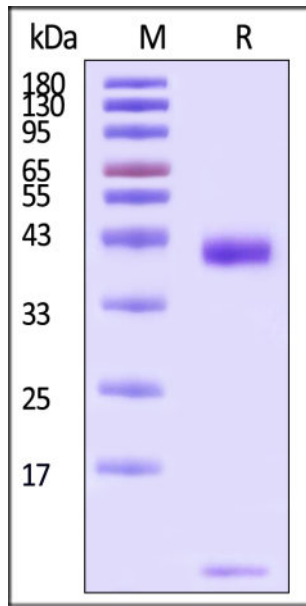
This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

ACRO Quality Management System

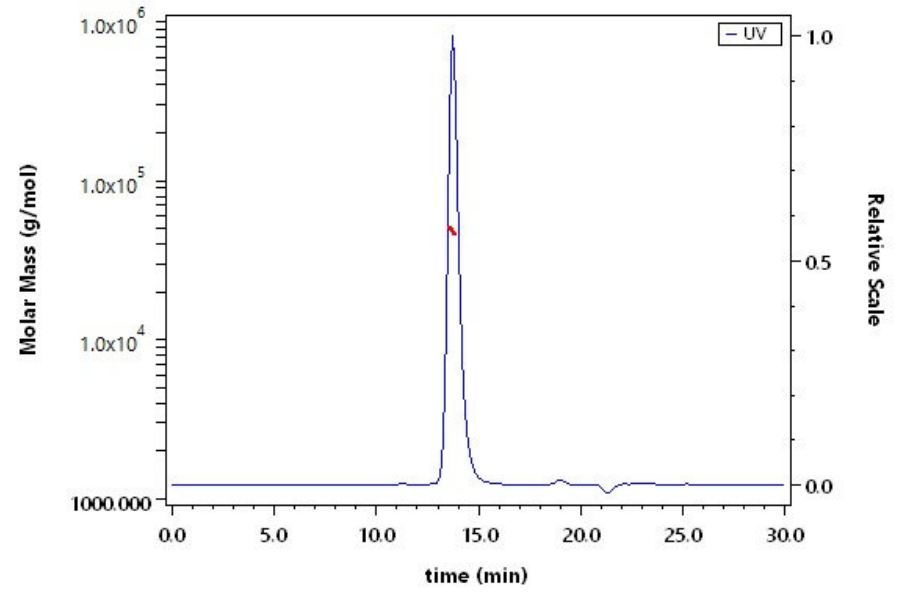
- [QMS\(ISO, GMP\)](#)
- [Quality Advantages](#)
- [Quality Control Process](#)

SDS-PAGE



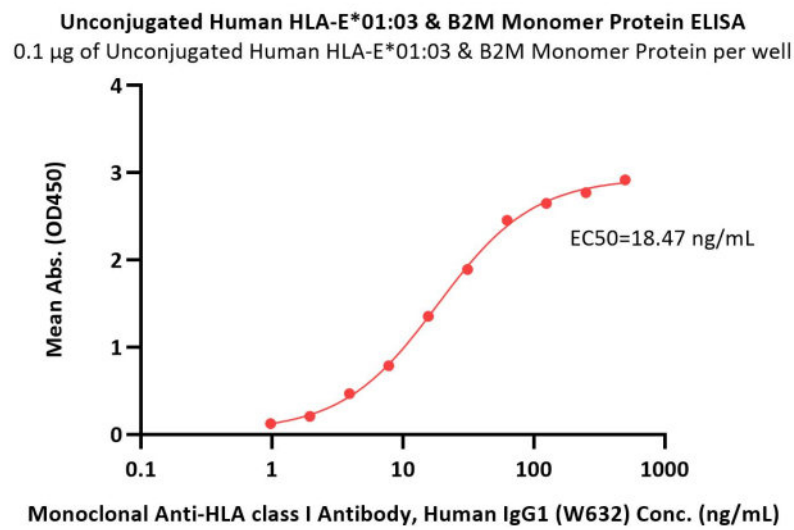
Unconjugated Human HLA-E*01:03 & B2M Monomer Protein on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

SEC-MALS

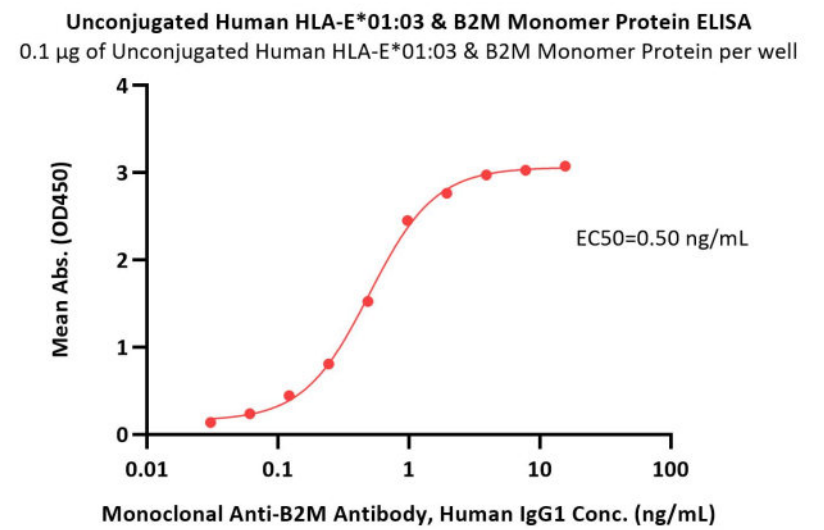


The purity of Unconjugated Human HLA-E*01:03 & B2M Monomer Protein (Cat. No. HLM-H52E5) is more than 90% and the molecular weight of this protein is around 45-60 kDa verified by SEC-MALS.

Bioactivity-ELISA



Immobilized Unconjugated Human HLA-E*01:03 & B2M Monomer Protein (Cat. No. HLM-H52E5) at 1 µg/mL (100 µL/well) can bind Monoclonal Anti-HLA class I Antibody, Human IgG1 (W632) with a linear range of 1-63 ng/mL (QC tested).



Immobilized Unconjugated Human HLA-E*01:03 & B2M Monomer Protein (Cat. No. HLM-H52E5) at 1 µg/mL (100 µL/well) can bind Monoclonal Anti-B2M Antibody, Human IgG1 with a linear range of 0.03-1 ng/mL (Routinely tested).

Background

HLA-E belongs to the HLA class I heavy chain paralogues. This class I molecule is a heterodimer consisting of a heavy chain and a light chain (beta-2 microglobulin). The heavy chain is anchored in the membrane. HLA-E binds a restricted subset of peptides derived from the leader peptides of other class I molecules. The heavy chain is approximately 45 kDa and its gene contains 8 exons. Exon one encodes the leader peptide, exons 2 and 3 encode the alpha1 and alpha2 domains, which both bind the peptide, exon 4 encodes the alpha3 domain, exon 5 encodes the transmembrane region, and exons 6 and 7 encode the cytoplasmic tail.

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