

Unconjugated HLA-E*01:03 & B2M & CMV UL40 (VMAPRTVLL) Complex Protein (Monomer, MALS verified)

Catalog # HL0-H52E3



BIOSYSTEMS
Acro

Surprise Inside!

Synonym

HLA-E*0103 & B2M & CMV UL40 (VMAPRTVLL)

Source

Unconjugated HLA-E*01:03 & B2M & CMV UL40 (VMAPRTVLL) Complex Protein (HL0-H52E3) is expressed from human 293 cells (HEK293). It contains AA Gly 22 - Ile 305 (HLA-E*01:03) & Ile 21 - Met 119 (B2M) & VMAPRTVLL peptide (Accession # [P13747](#) (HLA-E*01:03) & [P61769-1](#) (B2M) & VMAPRTVLL).

Predicted N-terminus: Gly 22 & Val

Molecular Characterization

Unconjugated HLA-E*01:03 & B2M & CMV UL40 (VMAPRTVLL) Complex Protein is produced by co-expression of HLA-E*01:03 and B2M loaded with CMV UL40 peptide.

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 13.7 kDa. The protein migrates as 38-43 kDa and 12 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.

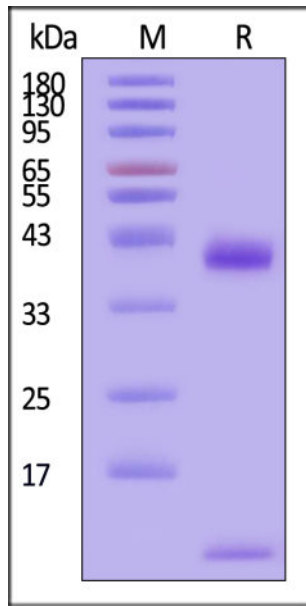
This product is stable after storage at:

- -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

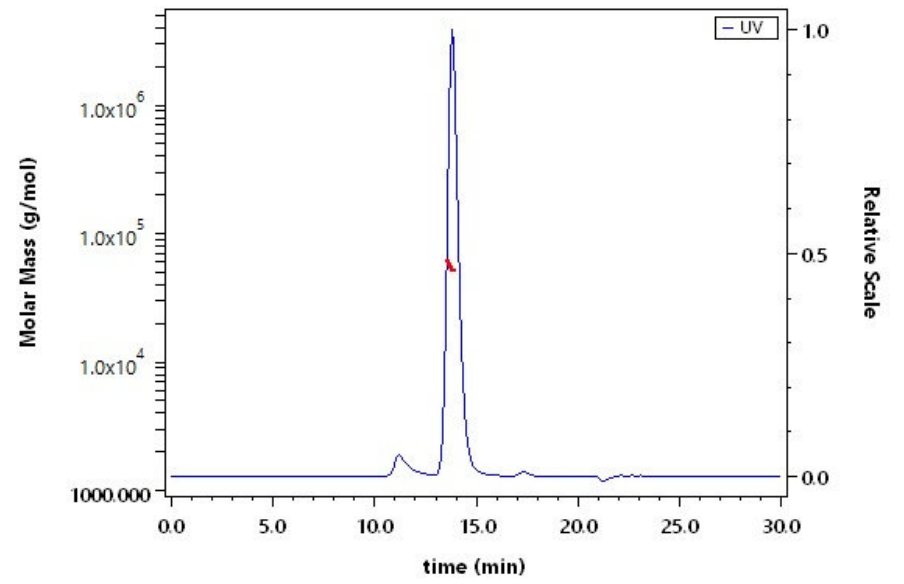
- [QMS\(ISO, GMP\)](#)
- [Quality Advantages](#)
- [Quality Control Process](#)

SDS-PAGE



Unconjugated HLA-E*01:03 & B2M & CMV UL40 (VMAPRTVLL) Complex 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](#)).

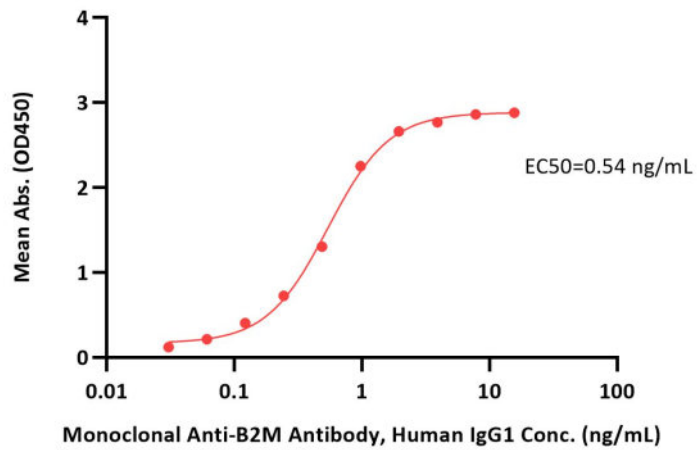
SEC-MALS



The purity of Unconjugated HLA-E*01:03 & B2M & CMV UL40 (VMAPRTVLL) Complex Protein (Cat. No. HL0-H52E3) is more than 90% and the molecular weight of this protein is around 50-70 kDa verified by SEC-MALS.

Bioactivity-ELISA

Unconjugated HLA-E*01:03 & B2M & CMV UL40 (VMAPRTVLL) Complex Protein ELISA
0.1 µg of Unconjugated HLA-E*01:03 & B2M & CMV UL40 (VMAPRTVLL) Complex Protein per well



Immobilized Unconjugated HLA-E*01:03 & B2M & CMV UL40 (VMAPRTVLL) Complex Protein (Cat. No. HL0-H52E3) 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 (QC 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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