Unconjugated Human HLA-A*11:01&B2M&KRASG12V (VVVGAVGVGK) Complex Protein (Monomer, MALS verified)

Catalog # HLV-H52E5

Synonym

HLA-A*1101 & B2M & KRASG12V (VVVGAVGVGK)

Source

Unconjugated Human HLA-A*11:01&B2M&KRASG12V (VVVGAVGVGK) Complex Protein(HLV-H52E5) is expressed from human 293 cells (HEK293). It contains AA Gly 25 - Thr 305 (HLA-A*11:01) & Ile 21 - Met 119 (B2M) & VVVGAVGVGK peptide (Accession # Q5S3G3-1 (HLA-A*11:01) & P61769 (B2M) & VVVGAVGVGK).
Predicted N-terminus: Gly 25 & Ile 21

Molecular Characterization

Unconjugated Human HLA-A*11:01&B2M&KRASG12V (VVVGAVGVGK) Complex Protein is produced by co-expression of HLA and B2M loaded with KRASG12V 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 36.0 kDa and 11.7 kDa. The protein migrates as 40-42 kDa and 11 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>90% as determined by SDS-PAGE.

>95% 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

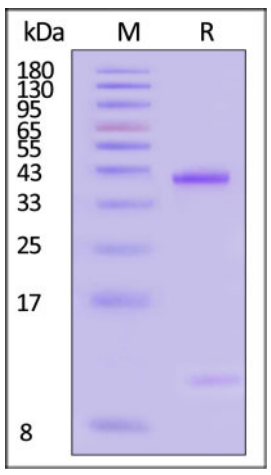
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

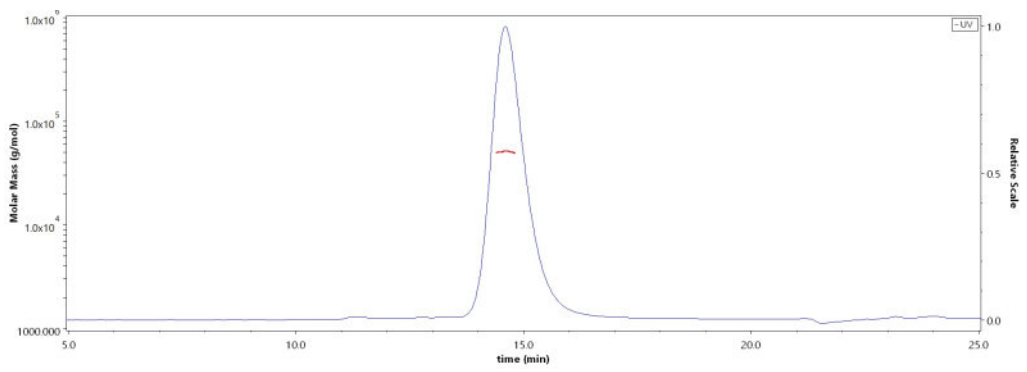
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Unconjugated Human HLA-A*11:01&B2M&KRASG12V (VVVGAVGVGK) Complex Protein on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

SEC-MALS

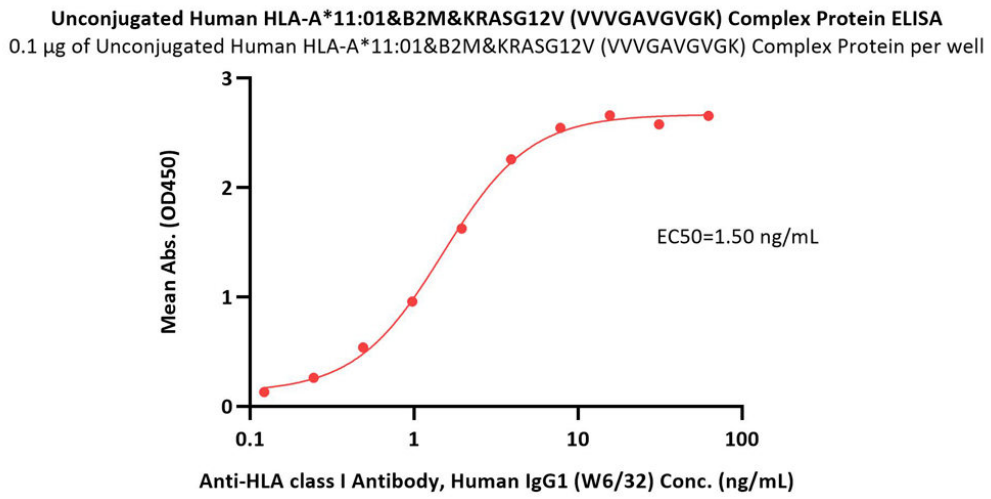


The purity of Unconjugated Human HLA-A*11:01&B2M&KRASG12V (VVVGAVGVGK) Complex Protein (Cat. No. HLV-H52E5) is more than 95% and the molecular weight of this protein is around 45-65 kDa verified by SEC-MALS.
Report

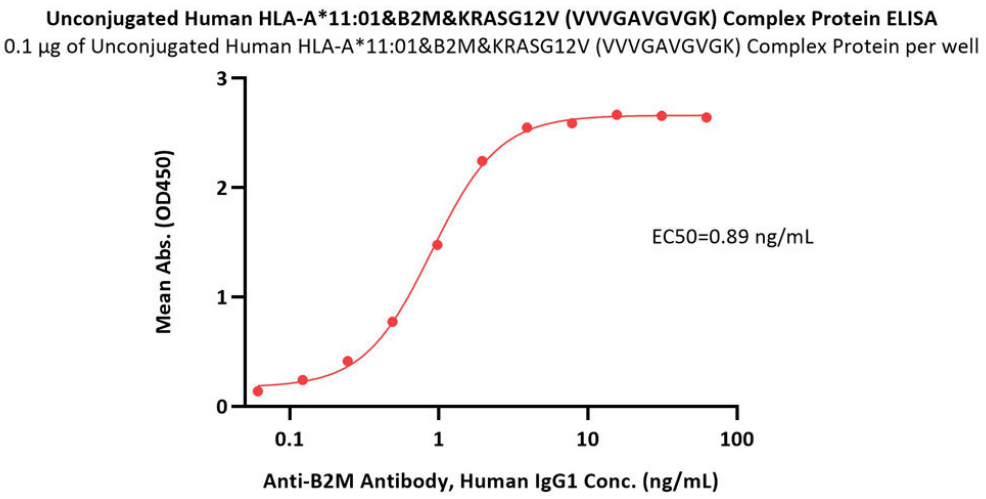
Bioactivity-ELISA

Unconjugated Human HLA-A*11:01&B2M&KRASG12V (VVVGAVGVGK) Complex Protein (Monomer, MALS verified)

Catalog # HLV-H52E5

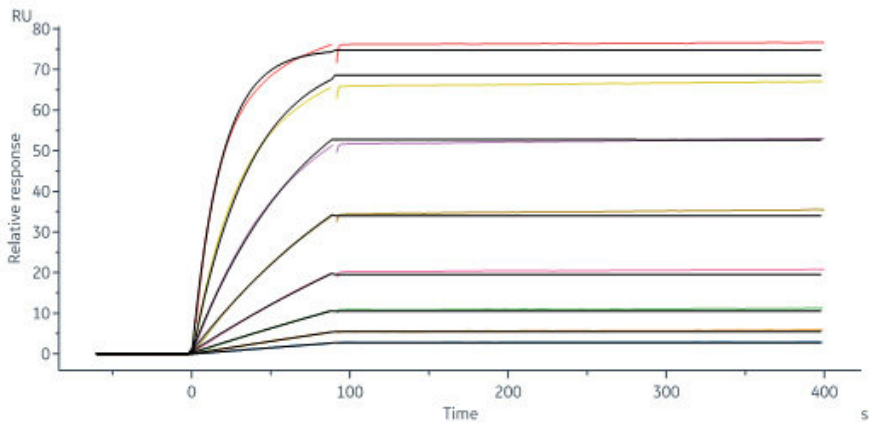


Immobilized Unconjugated Human HLA-A*11:01&B2M&KRASG12V (VVVGAVGVGK) Complex Protein (Cat. No. HLV-H52E5) at 1 μg/mL (100 μL/well) can bind Anti-HLA class I Antibody, Human IgG1 (W6/32) with a linear range of 0.1-4 ng/mL (QC tested).



Immobilized Unconjugated Human HLA-A*11:01&B2M&KRASG12V (VVVGAVGVGK) Complex Protein (Cat. No. HLV-H52E5) at 1 μg/mL (100 μL/well) can bind Anti-B2M Antibody, Human IgG1 with a linear range of 0.1-2 ng/mL (Routinely tested).

Bioactivity-SPR



Unconjugated Human HLA-A*11:01&B2M&KRASG12V (VVVGAVGVGK) Complex Protein (Cat. No. HLV-H52E5) captured on CM5 Chip via Anti-B2M antibody can bind Anti-HLA class I Antibody, Human IgG1 (W6/32) with an affinity constant of 0.119 pM as determined in a SPR assay (Biacore 8K) (Routinely tested).

Background

The Kirsten rat sarcoma 2 viral oncogene homolog (KRAS) oncogene plays a critical role in the initiation and maintenance of pancreatic tumors and its signaling network represents a major target for therapeutic intervention. The Human HLA-A*1101 KRASG12V (VVVGAVGVGK) complex protein is a complex of HLA-A*1101 of the MHC Class I, B2M, and VVVGAVGVGK peptide of the KRASG12V.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.