



### Source

Biotinylated Human HLA-A\*11:01&B2M&KRASG12A (VVVGAAGVGK) Complex Protein(HLA-H82E9) is expressed from human 293 cells (HEK293). It contains AA Gly 25 - Thr 305 (HLA-A\*11:01) & Ile 21 - Met 119 (B2M) & VVVGAAGVGK peptide (Accession # [Q5S3G3-1](#) (HLA-A\*11:01) & [P61769](#) (B2M) & VVVGAAGVGK).

Predicted N-terminus: Gly 25 & Ile 21

### Molecular Characterization

Biotinylated Human HLA-A\*11:01&B2M&KRASG12A (VVVGAAGVGK) Complex Protein is produced by co-expression of HLA and B2M loaded with KRASG12A peptide.

This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 36.0 kDa and 11.7 kDa. The protein migrates as 40-43 kDa and 10 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

### Labeling

*Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.*

### Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

### Endotoxin

Less than 1.0 EU per µg by the LAL method.

### Purity

>90% 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

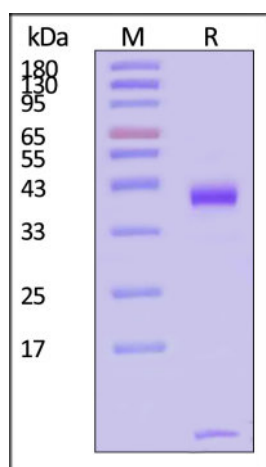
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

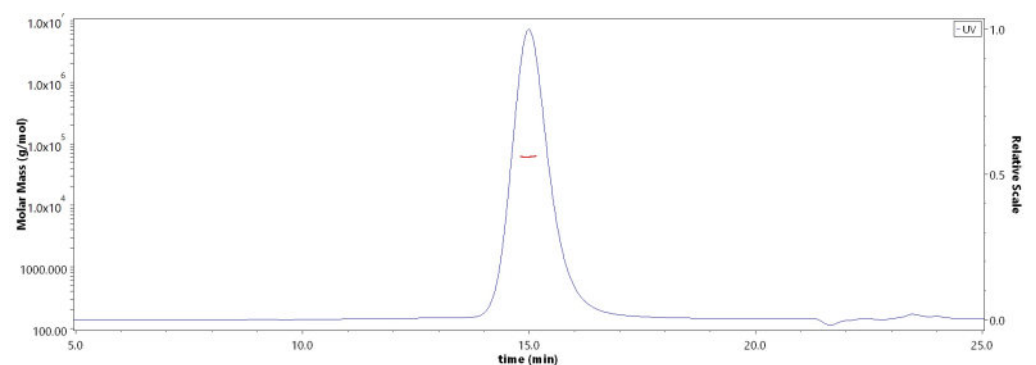
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

### SDS-PAGE



Biotinylated Human HLA-A\*11:01&B2M&KRASG12A (VVVGAAGVGK) 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 Biotinylated Human HLA-A\*11:01&B2M&KRASG12A (VVVGAAGVGK) Complex Protein (Cat. No. HLA-H82E9) is more than 90% and the molecular weight of this protein is around 45-65 kDa verified by SEC-MALS.

[Report](#)

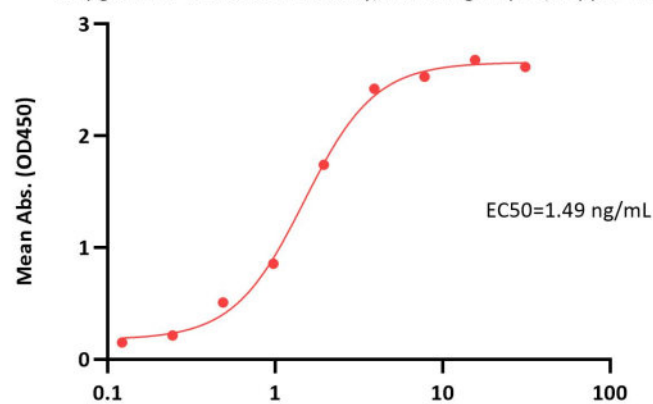
Discounts, Gifts,  
and more!





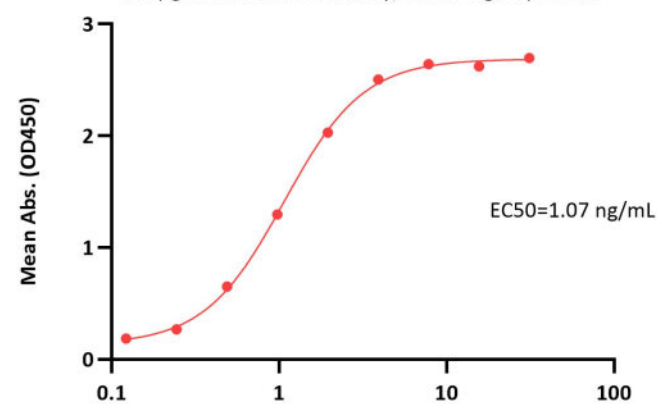
## Bioactivity-ELISA

**Biotinylated Human HLA-A\*11:01&B2M&KRASG12A (VVVGAAGVGK) Complex Protein ELISA**  
0.1 µg of Anti-HLA class I Antibody, Human IgG1 (W6/32) per well



Biotinylated Human HLA-A\*11:01&B2M&KRASG12A (VVVGAAGVGK) Complex Protein Conc. (ng/mL)

**Biotinylated Human HLA-A\*11:01&B2M&KRASG12A (VVVGAAGVGK) Complex Protein ELISA**  
0.1 µg of Anti-B2M Antibody, Human IgG1 per well



Biotinylated Human HLA-A\*11:01&B2M&KRASG12A (VVVGAAGVGK) Complex Protein Conc. (ng/mL)

Immobilized Anti-HLA class I Antibody, Human IgG1 (W6/32) at 1 µg/mL (100 µL/well) can bind Biotinylated Human HLA-A\*11:01&B2M&KRASG12A (VVVGAAGVGK) Complex Protein (Cat. No. HLA-H82E9) with a linear range of 0.1-4 ng/mL (QC tested).

Immobilized Anti-B2M Antibody, Human IgG1 at 1 µg/mL (100 µL/well) can bind Biotinylated Human HLA-A\*11:01&B2M&KRASG12A (VVVGAAGVGK) Complex Protein (Cat. No. HLA-H82E9) with a linear range of 0.1-4 ng/mL (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 Biotinylated Human HLA-A\*1101 KRASG12A (VVVGAAGVGK) complex protein is a complex of HLA-A\*1101 of the MHC Class I, B2M, and VVVGAAGVGK peptide of the KRASG12A.

## Clinical and Translational Updates

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