# Biotinylated Human HLA-A\*11:01&B2M&KRASG12V (VVGAVGVGK) Complex Protein (Monomer, MALS verified)

Catalog # HLV-H82E6





## **Synonym**

HLA-A\*1101 | B2M | KRASG12V (VVGAVGVGK)

#### Source

Biotinylated Human HLA-A\*11:01&B2M&KRASG12V (VVGAVGVGK) Complex Protein(HLV-H82E6) is expressed from human 293 cells (HEK293). It contains AA Gly 25 - Thr 305 (HLA-A\*11:01) & Ile 21 - Met 119 (B2M) & VVGAVGVGK peptide (Accession # Q5S3G3-1 (HLA-A\*11:01) & P61769 (B2M) & VVGAVGVGK).

Predicted N-terminus: Gly 25 & Ile 21

#### **Molecular Characterization**

Biotinylated Human HLA-A\*11:01&B2M&KRASG12V (VVGAVGVGK) 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<sup>TM</sup>).

The protein has a calculated MW of 36.0 kDa and 11.7 kDa. The protein migrates as 40-45 kDa and 12 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

#### Labeling

Biotinylation of this product is performed using Avitag<sup>TM</sup> 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  $0.22~\mu m$  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**

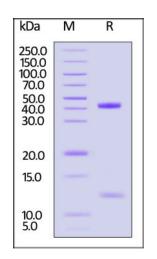
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

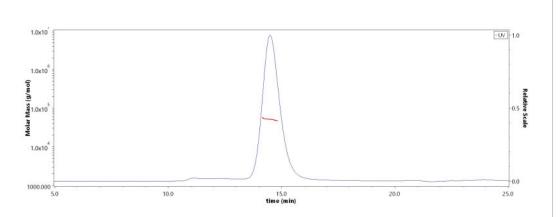
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

### **SDS-PAGE**



Biotinylated Human HLA-A\*11:01&B2M&KRASG12V (VVGAVGVGK) 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%.

# SEC-MALS



The purity of Biotinylated Human HLA-A\*11:01&B2M&KRASG12V (VVGAVGVGK) Complex Protein (Cat. No. HLV-H82E6) is more than 90% and the molecular weight of this protein is around 45-60 kDa verified by SEC-MALS.



# Biotinylated Human HLA-A\*11:01&B2M&KRASG12V (VVGAVGVGK) Complex Protein (Monomer, MALS verified)

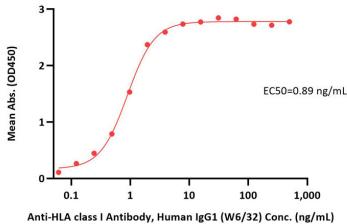
Catalog # HLV-H82E6





# **Bioactivity-ELISA**

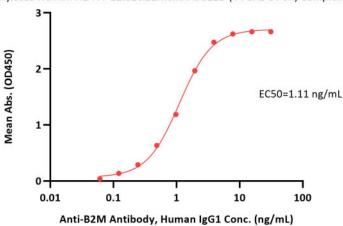
Biotinylated Human HLA-A\*11:01&B2M&KRASG12V (VVGAVGVGK) Complex Protein ELISA 0.1  $\mu$ g of Biotinylated Human HLA-A\*11:01&B2M&KRASG12V (VVGAVGVGK) Complex Protein per well



Immobilized Biotinylated Human HLA-A\*11:01&B2M&KRASG12V (VVGAVGVGK) Complex Protein (Cat. No. HLV-H82E6) at 1  $\mu$ g/mL (100  $\mu$ L/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5  $\mu$ g/well) plate can bind Anti-HLA class I Antibody, Human IgG1 (W6/32) with a linear range of 0.1-2 ng/mL (QC tested).

#### Report

Biotinylated Human HLA-A\*11:01&B2M&KRASG12D (VVGADGVGK) Complex Protein ELISA 0.1 μg of Biotinylated Human HLA-A\*11:01&B2M&KRASG12D (VVGADGVGK) Complex Protein per well



Immobilized Biotinylated Human HLA-A\*11:01&B2M&KRASG12V (VVGAVGVGK) Complex Protein (Cat. No. HLV-H82E6) at 1  $\mu$ g/mL (100  $\mu$ L/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5  $\mu$ g/well) plate can bind Anti-B2M Antibody, Human IgG1 with a linear range of 0.1-2 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 KRASG12V (VVGAVGVGK) complex protein is a complex of HLA-A\*1101 of the MHC Class I, B2M, and VVGAVGVGK peptide of the KRASG12V.

# **Clinical and Translational Updates**

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

