

**Synonym**

HLA-A\*0301 &amp; B2M &amp; KRAS (VVVGAGGVGK)

**Source**

Human HLA-A\*03:01&B2M&KRAS (VVVGAGGVGK) Complex Protein(HLS-H52H6) is expressed from human 293 cells (HEK293). It contains AA Gly 25 - Thr 305 (HLA-A\*03:01) & Ile 21 - Met 119 (B2M) & VVVGAGGVGK peptide (Accession # [P04439](#) (HLA-A\*03:01) & [P61769](#) (B2M) & VVVGAGGVGK).

Predicted N-terminus: Gly 25 &amp; Ile 21

**Molecular Characterization**

Human HLA-A\*03:01&B2M&KRAS (VVVGAGGVGK) Complex Protein is produced by co-expression of HLA and B2M loaded with KRAS peptide.

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 34.2 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.

**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.*

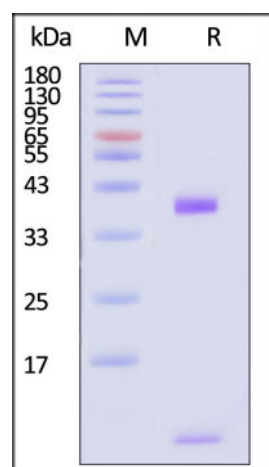
**Storage**

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

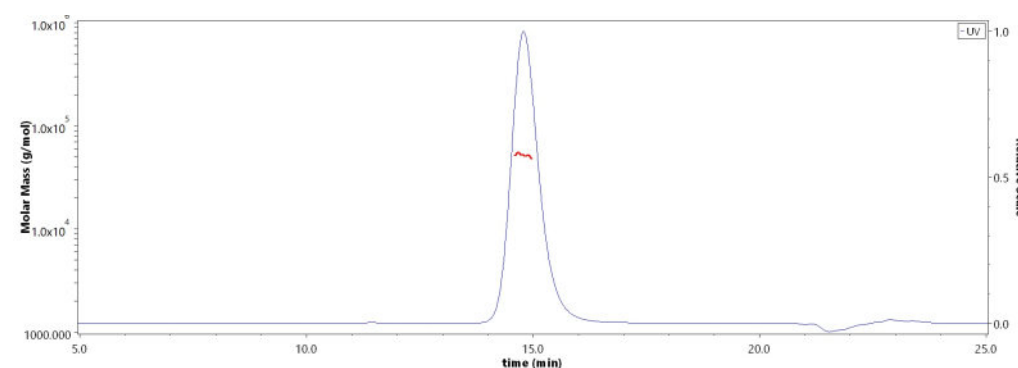
*Please avoid repeated freeze-thaw cycles.*

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.

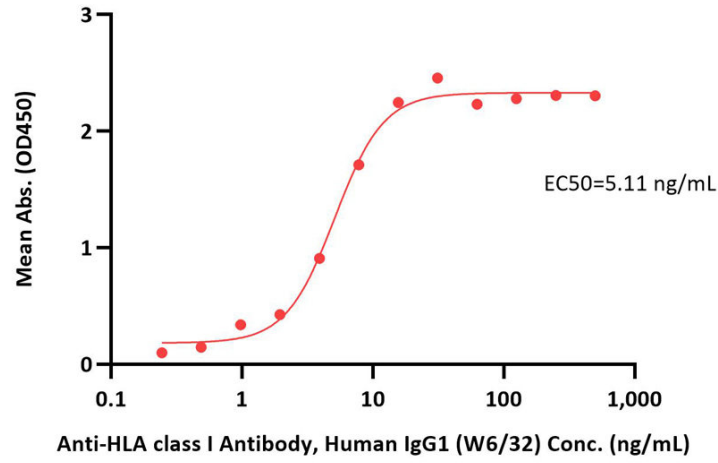
**SDS-PAGE**

Human HLA-A\*03:01&B2M&KRAS (VVVGAGGVGK) 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](#)).

**Bioactivity-ELISA****SEC-MALS**

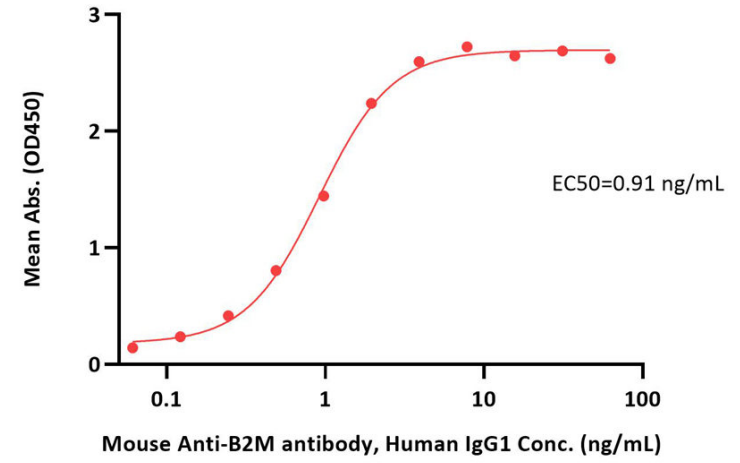
The purity of Human HLA-A\*03:01&B2M&KRAS (VVVGAGGVGK) Complex Protein (Cat. No. HLS-H52H6) is more than 95% and the molecular weight of this protein is around 45-60 kDa verified by SEC-MALS. [Report](#)

Human HLA-A\*03:01&B2M&KRAS (VVVGAGGVGK) Complex Protein ELISA  
0.1 µg of Human HLA-A\*03:01&B2M&KRAS (VVVGAGGVGK) Complex Protein per well



Immobilized Human HLA-A\*03:01&B2M&KRAS (VVVGAGGVGK) Complex Protein (Cat. No. HLS-H52H6) at 1 µg/mL (100 µL/well) can bind Anti-HLA class I Antibody, Human IgG1 (W6/32) with a linear range of 0.2-16 ng/mL (QC tested).

Human HLA-A\*03:01&B2M&KRAS (VVVGAGGVGK) Complex Protein ELISA  
0.1 µg of Human HLA-A\*03:01&B2M&KRAS (VVVGAGGVGK) Complex Protein per well



Immobilized Human HLA-A\*03:01&B2M&KRAS (VVVGAGGVGK) Complex Protein (Cat. No. HLS-H52H6) at 1 µg/mL (100 µL/well) can bind Mouse 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\*0301 KRAS (VVVGAGGVGK) complex protein is a complex of HLA-A\*0301 of the MHC Class I, B2M, and VVVGAGGVGK peptide of the KRAS.

## Clinical and Translational Updates

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.