# Biotinylated Human HLA-A\*02:01&B2M&p53 (HMTEVVRRC) Complex Protein (Monomer, MALS verified)

Catalog # HLP-H82E4





#### Synonym

HLA-A\*0201 & B2M & p53 (HMTEVVRRC)

#### Source

Biotinylated Human HLA-A\*02:01&B2M&p53 (HMTEVVRRC) Complex Protein(HLP-H82E4) is expressed from human 293 cells (HEK293). It contains AA Gly 25 - Ile 308 (HLA-A\*02:01) & Ile 21 - Met 119 (B2M) & HMTEVVRRC peptide (Accession # <u>AAA59606.1</u> (HLA-A\*02:01) & <u>P61769-1</u> (B2M) & HMTEVVRRC).

Predicted N-terminus: Gly 25 & Ile 21

#### **Molecular Characterization**

Biotinylated Human HLA-A\*02:01&B2M&p53 (HMTEVVRRC) Complex Protein is produced by co-expression of HLA and B2M loaded with p53 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 36.3 kDa and 11.7 kDa. The protein migrates as 38-43 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**

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

#### **Formulation**

Supplied as  $0.2~\mu m$  filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

#### Shipping

This product is supplied and shipped with dry ice, please inquire the shipping cost.

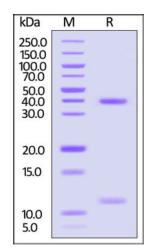
#### **Storage**

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

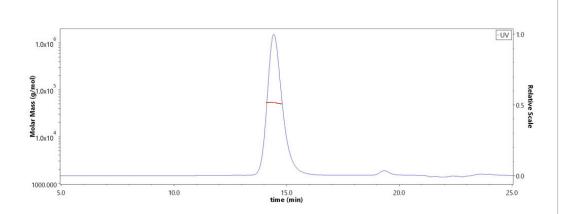
- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 3 months under sterile conditions.

#### **SDS-PAGE**



Biotinylated Human HLA-A\*02:01&B2M&p53 (HMTEVVRRC) 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%.

# SEC-MALS



The purity of Biotinylated Human HLA-A\*02:01&B2M&p53 (HMTEVVRRC) Complex Protein (Cat. No. HLP-H82E4) is more than 90% and the molecular weight of this protein is around 45-60 kDa verified by SEC-MALS.

Report



# Biotinylated Human HLA-A\*02:01&B2M&p53 (HMTEVVRRC) Complex Protein (Monomer, MALS verified)

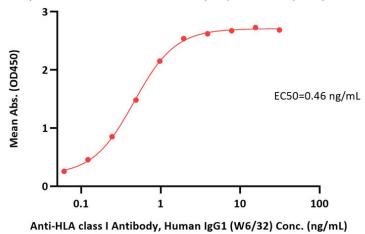
Catalog # HLP-H82E4





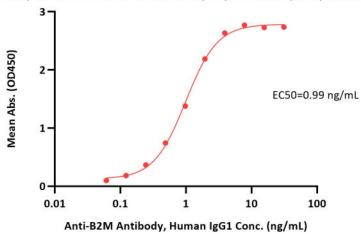
#### **Bioactivity-ELISA**

Biotinylated Human HLA-A\*02:01&B2M&p53 (HMTEVVRRC) Complex Protein ELISA 0.1  $\mu$ g of Biotinylated Human HLA-A\*02:01&B2M&p53 (HMTEVVRRC) Complex Protein per well



Immobilized Biotinylated Human HLA-A\*02:01&B2M&p53 (HMTEVVRRC) Complex Protein (Cat. No. HLP-H82E4) 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 0.1-1 ng/mL (QC tested).

Biotinylated Human HLA-A\*02:01&B2M&p53 (HMTEVVRRC) Complex Protein ELISA 0.1 µg of Biotinylated Human HLA-A\*02:01&B2M&p53 (HMTEVVRRC) Complex Protein per well



Immobilized Biotinylated Human HLA-A\*02:01&B2M&p53 (HMTEVVRRC) Complex Protein (Cat. No. HLP-H82E4) 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

TP53 has been recognized as a tumor suppressor. 50% of cancers carry a TP53 mutation while many others affect other pathway components. High-copy numbers of WT p53 peptide-MHC class I complexes were detected on tumor cells as compared to low copies on normal cells. The Human HLA-A\*0201 p53 (HMTEVVRRC) complex protein is a complex of HLA-A\*0201 of the MHC Class I, B2M, and HMTEVVRRC peptide of the p53.

# **Clinical and Translational Updates**

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

