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

Catalog # HLN-H82E5





#### **Synonym**

HLA-A\*0201 & B2M & Survivin (TLPPAWQPFL)

#### Source

Biotinylated Human HLA-A\*02:01&B2M&Survivin (TLPPAWQPFL) Complex Protein(HLN-H82E5) is expressed from human 293 cells (HEK293). It contains AA Gly 25 - Ile 308 (HLA-A\*02:01) & Ile 21 - Met 119 (B2M) & TLPPAWQPFL peptide (Accession # <u>AAA59606.1</u> (HLA-A\*02:01) & <u>P61769-1</u> (B2M) & TLPPAWQPFL).

Predicted N-terminus: Gly 25 & Thr

#### **Molecular Characterization**

Biotinylated Human HLA-A\*02:01&B2M&Survivin (TLPPAWQPFL) Complex Protein is produced by co-expression of HLA and B2M loaded with Survivin 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 13.9 kDa. The protein migrates as 40-43 kDa and 12 kDa when calibrated against <u>Star Ribbon Prestained Protein Marker</u> 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  $\mu g$  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**

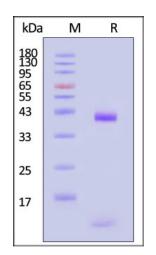
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

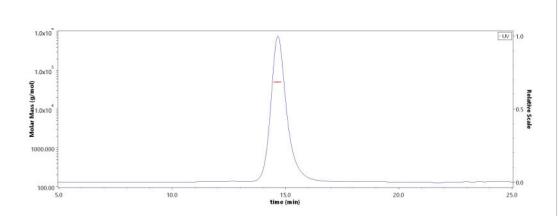
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

### **SDS-PAGE**



Biotinylated Human HLA-A\*02:01&B2M&Survivin (TLPPAWQPFL) Complex Protein on SDS-PAGE under reducing (R) condition. The gel was

# SEC-MALS



The purity of Biotinylated Human HLA-A\*02:01&B2M&Survivin (TLPPAWQPFL) Complex Protein (Cat. No. HLN-H82E5) is more than 90%



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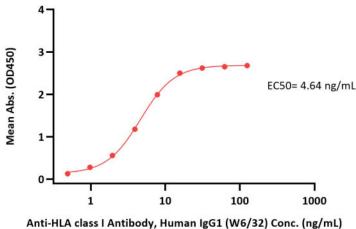
stained with Coomassie Blue. The purity of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

and the molecular weight of this protein is around 45-60 kDa verified by SEC-MALS.

Report

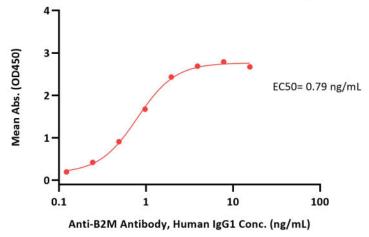
# **Bioactivity-ELISA**

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



Immobilized Biotinylated Human HLA-A\*02:01&B2M&Survivin (TLPPAWQPFL) Complex Protein (Cat. No. HLN-H82E5) 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 0.5-8 ng/mL (QC tested).

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



Immobilized Biotinylated Human HLA-A\*02:01&B2M&Survivin (TLPPAWQPFL) Complex Protein (Cat. No. HLN-H82E5) 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**

Survivin, also known as BIRC5 and EPR-1, is a member of the inhibitor of apoptosis (IAP) family, which encodes negative regulatory proteins that prevent apoptotic cell death. IAP family members usually contain multiple baculovirus IAP repeat (BIR) domains, but birc5 encodes proteins with only a single BIR domain. The Human HLA-A\*0201 Survivin (TLPPAWQPFL) complex protein is a complex of HLA-A\*0201 of the MHC Class I, B2M and TLPPAWQPFL peptide of the Survivin.

**Clinical and Translational Updates** 

