# Biotinylated Human HLA-A\*02:01&B2M&EBV LMP2 (FLYALALLL) Complex Protein (Monomer, MALS verified)

Catalog # HL2-H82Er





#### Synonym

HLA-A\*0201 & B2M & EBV LMP2 (FLYALALLL)

#### Source

Biotinylated Human HLA-A\*02:01&B2M&EBV LMP2 (FLYALALLL)
Complex Protein(HL2-H82Er) is expressed from human 293 cells (HEK293). It contains AA Gly 25 - Ile 308 (HLA-A\*02:01) & Ile 21 - Met 119 (B2M) & FLYALALLL peptide (Accession # AAA59606.1 (HLA-A\*02:01) & P61769-1 (B2M) & FLYALALLL).

Predicted N-terminus: Gly 25 & Ile 21

#### **Molecular Characterization**

Biotinylated Human HLA-A\*02:01&B2M&EBV LMP2 (FLYALALLL) Complex Protein is produced by co-expression of HLA and B2M loaded with EBV LMP2 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 40-43 kDa and 10 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**

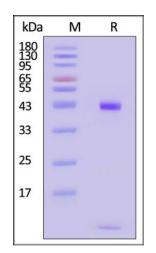
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

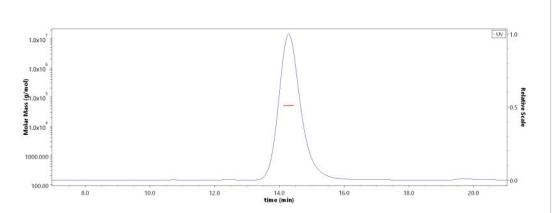
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

#### **SDS-PAGE**



Biotinylated Human HLA-A\*02:01&B2M&EBV LMP2 (FLYALALLL) Complex Protein on SDS-PAGE under reducing (R) condition. The gel was

#### **SEC-MALS**



The purity of Biotinylated Human HLA-A\*02:01&B2M&EBV LMP2 (FLYALALLL) Complex Protein (Cat. No. HL2-H82Er) is more than 90% and



# Biotinylated Human HLA-A\*02:01&B2M&EBV LMP2 (FLYALALLL) Complex Protein (Monomer, MALS verified)

Catalog # HL2-H82Er





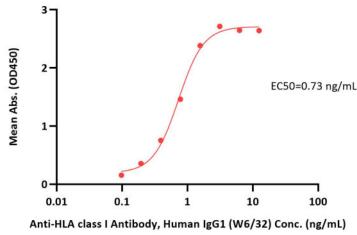
stained with Coomassie Blue. The purity of the protein is greater than 90% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

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

Report

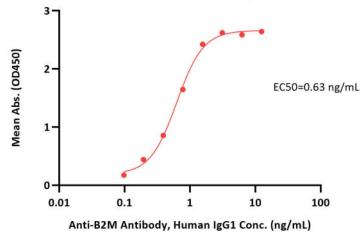
#### **Bioactivity-ELISA**

Biotinylated Human HLA-A\*02:01&B2M&EBV LMP2 (FLYALALLL) Complex Protein ELISA 0.1  $\mu$ g of Biotinylated Human HLA-A\*02:01&B2M&EBV LMP2 (FLYALALLL) Complex Protein per well



Immobilized Biotinylated Human HLA-A\*02:01&B2M&EBV LMP2 (FLYALALLL) Complex Protein (Cat. No. HL2-H82Er) 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 0.1-1.6 ng/mL (QC tested).

# Biotinylated Human HLA-A\*02:01&B2M&EBV LMP2 (FLYALALLL) Complex Protein ELISA 0.1 μg of Biotinylated Human HLA-A\*02:01&B2M&EBV LMP2 (FLYALALLL) Complex Protein per well



Immobilized Biotinylated Human HLA-A\*02:01&B2M&EBV LMP2 (FLYALALLL) Complex Protein (Cat. No. HL2-H82Er) 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 0.1-1.6 ng/mL (Routinely tested).

#### **Background**

Epstein-Bar Virus (EBV), also known as human herpesvirus 4, belongs to gamma herpes virus family and is a very common human virus worldwide. EBV causes infectious mononucleosis (IM) and also associates to some specific types of cancers such as Burkitt's lymphoma (BL) and gastric carcinoma (GC). Glycoprotein B (gB) plays an important role in viral entry by binding with  $\alpha v \beta 6/\alpha v \beta 8$  integrins to trigger the membrane fusion and entry process of epithelial cells, which makes it become an great target for EBV research. Epstein-Bar Virus (EBV), also known as human herpesvirus 4, belongs to gamma herpes virus family and is a very common human virus worldwide. EBV causes infectious mononucleosis (IM) and also associates to some specific types of cancers such as Burkitt's lymphoma (BL) and gastric carcinoma (GC). Glycoprotein B (gB) plays an important role in viral entry by binding with  $\alpha v \beta 6/\alpha v \beta 8$  integrins to trigger the membrane fusion and entry process of epithelial cells, which makes it become an great target for EBV research. The Human HLA-A\*0201 EBV LMP2 (FLYALALLL) complex protein is a complex of HLA-A\*0201 of the MHC Class I, B2M and FLYALALLL peptide of the EBV LMP2.

## **Clinical and Translational Updates**

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

