Biotinylated Human HLA-A*11:01&B2M&EBV (AVFDRKSDAK) Complex Protein (Monomer, MALS verified)

Catalog # HLE-H82E5

Synonym

HLA-A*1101 & B2M & EBV (AVFDRKSDAK)

Source

Biotinylated Human HLA-A*11:01&B2M&EBV (AVFDRKSDAK) Complex Protein(HLE-H82E5) is expressed from human 293 cells (HEK293). It contains AA Gly 25 - Thr 305 (HLA-A*11:01) & Ile 21 - Met 119 (B2M) & AVFDRKSDAK peptide (Accession # Q5S3G3-1 (HLA-A*11:01) & P61769 (B2M) & AVFDRKSDAK).
Predicted N-terminus: Gly 25 & Ile 21

Molecular Characterization

Biotinylated Human HLA-A*11:01&B2M&EBV (AVFDRKSDAK) Complex Protein is produced by co-expression of HLA and B2M loaded with EBV peptide.

This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 36.0 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™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Purity

>90% as determined by SDS-PAGE.

>90% 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

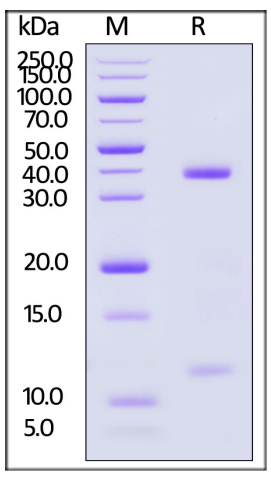
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

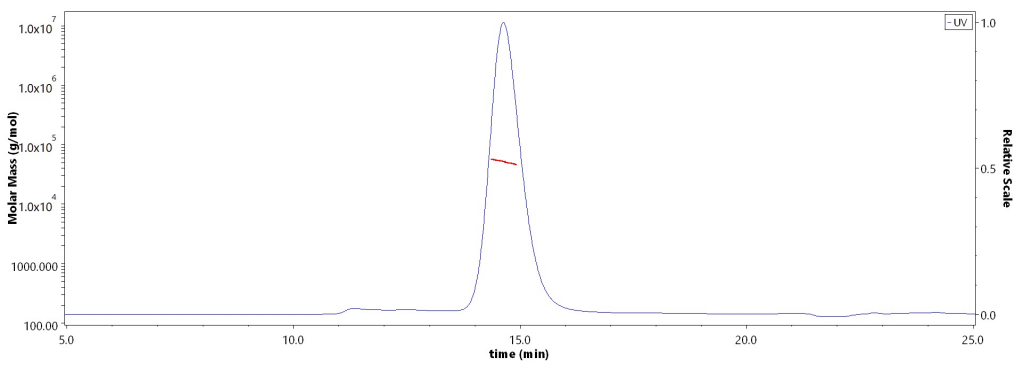
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Biotinylated Human HLA-A*11:01&B2M&EBV (AVFDRKSDAK) 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

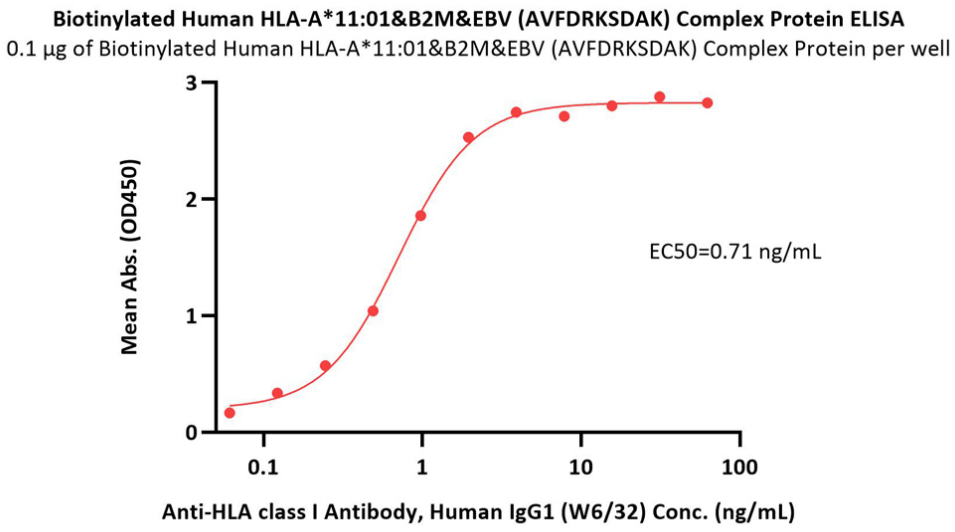


The purity of Biotinylated Human HLA-A*11:01&B2M&EBV (AVFDRKSDAK) Complex Protein (Cat. No. HLE-H82E5) is more than 90% and the molecular weight of this protein is around 45-60 kDa verified by SEC-MALS.
Report

Bioactivity-ELISA

Biotinylated Human HLA-A*11:01&B2M&EBV (AVFDRKSDAK) Complex Protein (Monomer, MALS verified)

Catalog # HLE-H82E5



Immobilized Biotinylated Human HLA-A*11:01&B2M&EBV (AVFDRKSDAK) Complex Protein (Cat. No. HLE-H82E5) at 1 μg/mL (100 μL/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 μg/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).

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 αvβ6/αvβ8 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 αvβ6/αvβ8 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*1101 EBV (AVFDRKSDAK) complex protein is a complex of HLA-A*1101 of the MHC Class I, B2M and AVFDRKSDAK peptide of the EBV.