Biotinylated Human HVEM / TNFRSF14 Protein, Fc,Avitag™ (MALS verified)

Catalog # HVM-H82F6

Synonym

TNFRSF14,ATAR,HVEA,HVEM,LIGHTR,TR2,CD270

Source

Biotinylated Human HVEM, Fc,Avitag(HVM-H82F6) is expressed from human 293 cells (HEK293). It contains AA Leu 39 - Val 202 (Accession # Q92956-1). Predicted N-terminus: Leu 39

Molecular Characterization

This protein carries a human IgG1 Fc tag at the C-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 45.5 kDa. The protein migrates as 55-66 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.

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

Lyophilized from 0.22 μm filtered solution in 50 mM Tris, 100 mM Glycine, 25 mM Arginine, 150 mM NaCl, pH7.5 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

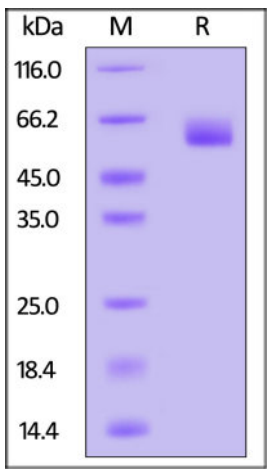
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

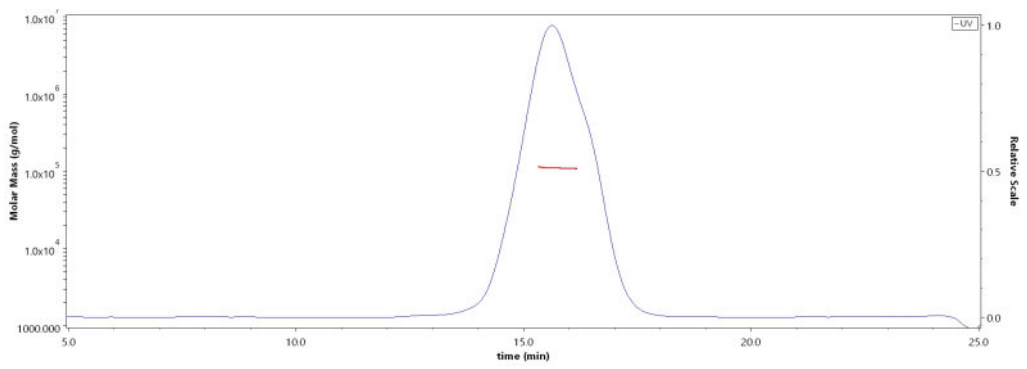
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



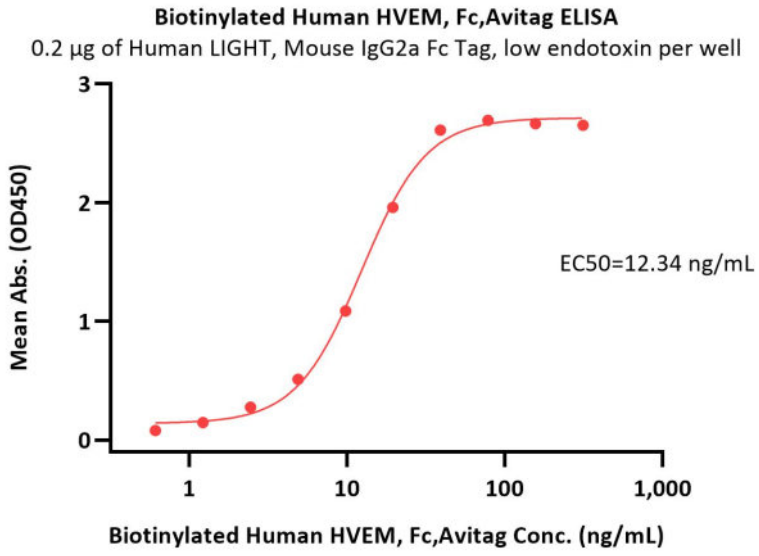
Biotinylated Human HVEM, Fc,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

SEC-MALS

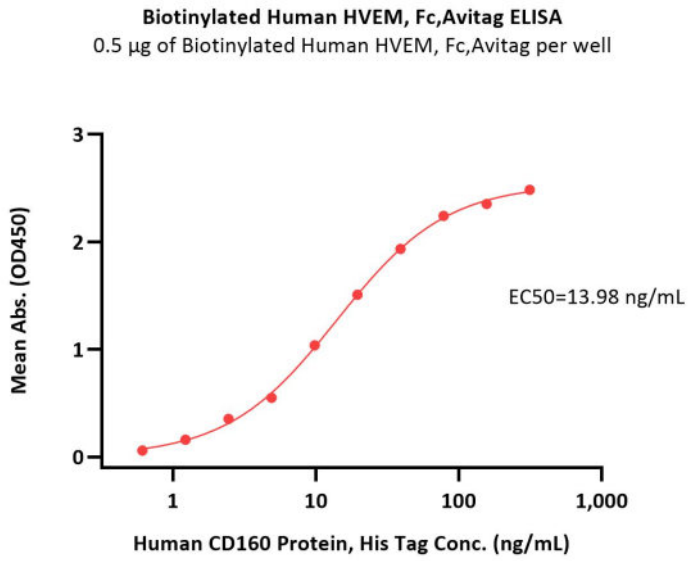


The purity of Biotinylated Human HVEM, Fc,Avitag (Cat. No. HVM-H82F6) is more than 90% and the molecular weight of this protein is around 100-120 kDa verified by SEC-MALS.
Report

Bioactivity-ELISA



Immobilized Human LIGHT, Mouse IgG2a Fc Tag, low endotoxin (Cat. No. LIT-H5256) at 2 μg/mL (100 μL/well) can bind Biotinylated Human HVEM, Fc,Avitag (Cat. No. HVM-H82F6) with a linear range of 0.6-39 ng/mL (QC tested).



Immobilized Biotinylated Human HVEM, Fc,Avitag (Cat. No. HVM-H82F6) at 5 μg/mL (100 μL/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 μg/well) plate can bind Human CD160 Protein, His Tag with a linear range of 1-78 ng/mL (Routinely tested).

Background

Herpesvirus entry mediator (HVEM) is also known as TNFRSF14, TR2 (TNF receptorlike molecule) and ATAR (another TRAF associated receptor), is a type I membrane protein belonging to the TNF/NGF receptor superfamily. HVEM expression has been detected in peripheral blood T cells, B cells, monocytes and in various tissues enriched in lymphoid cells. The extracellular domain of HVEM has been shown to interact directly with the herpes simplex virus envelope glycoprotein D (gD). Two TNF superfamily ligands, including the secreted TNFβ (lymphotoxin α) and the membrane protein LIGHT (lymphotoxins, exhibits inducible expression, and competes with HSV glycoprotein D for HVEM, a receptor expressed by T lymphocytes), have been shown to be the cellular ligands for HVEM. Besides HVEM, LIGHT can also interact with LTβR, the receptor for lymphotoxin αβ heterotrimer. The role of the HVEM LIGHT /LTβ receptor ligand pair in immune function and herpesvirus pathobiology remains to be elucidated.

Clinical and Translational Updates