Biotinylated Human CD109 / CPAMD7 Protein, His,Avitag™ (MALS & SPR verified)

Catalog # CD9-H82E4

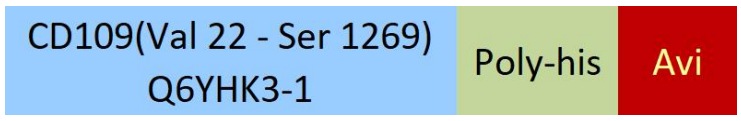
Synonym

CD109,CPAMD7,r150,p180,CPAMD7

Source

Biotinylated Human CD109, His,Avitag(CD9-H82E4) is expressed from human 293 cells (HEK293). It contains AA Val 22 - Ser 1269 (Accession # Q6YHK3-1).

Molecular Characterization



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

The protein has a calculated MW of 143.5 kDa. The protein migrates as 150-170 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.

Purity

>95% as determined by SDS-PAGE.

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

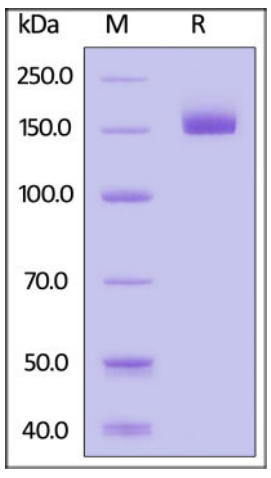
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

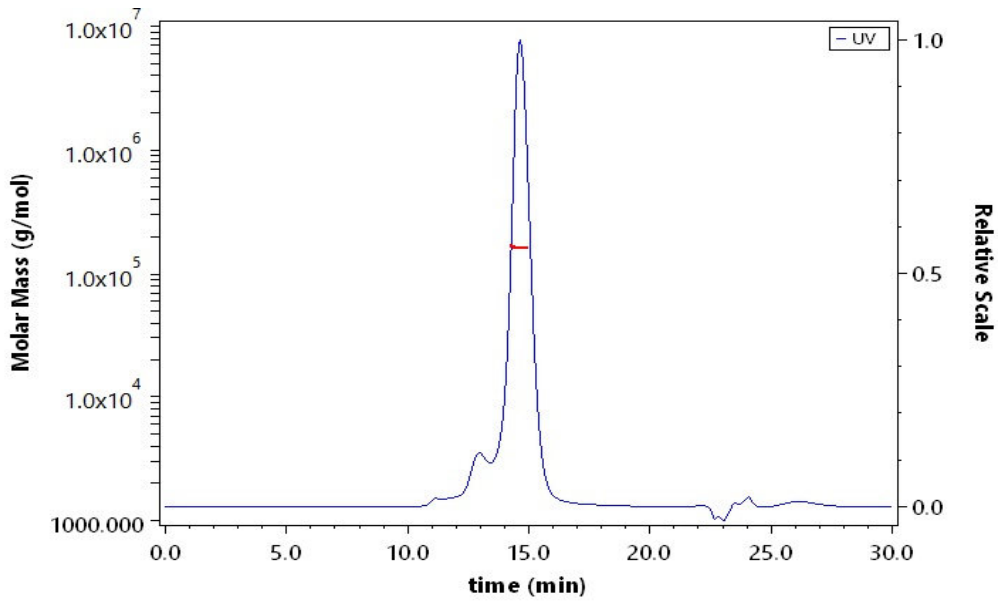
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



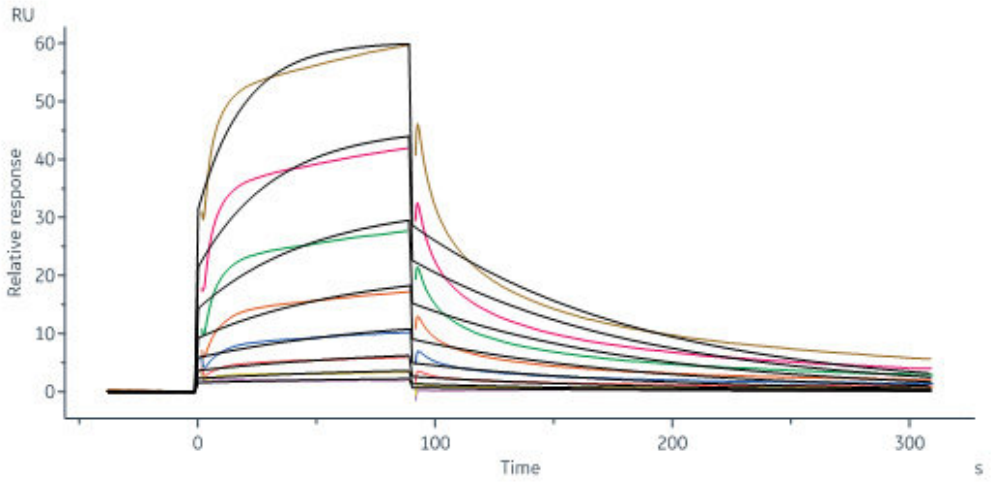
Biotinylated Human CD109, His,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

SEC-MALS



The purity of Biotinylated Human CD109, His,Avitag (Cat. No. CD9-H82E4) is more than 85% and the molecular weight of this protein is around 150-180 kDa verified by SEC-MALS.
Report

Bioactivity-SPR



Biotinylated Human CD109, His,Avitag (Cat. No. CD9-H82E4) immobilized on CM5 Chip can bind Biotinylated Human TGF-Beta 1, Avitag (Cat. No. TG1-H8217) with an affinity constant of 0.248 μM as determined in a SPR assay (Biacore 8K) (QC tested).

Background

CD109 is a glycosyl phosphatidylinositol (GPI)-linked glycoprotein that localizes to the surface of platelets, activated T-cells, and endothelial cells. CD109 is expressed in many malignant tumors, including various squamous cell carcinomas and adenocarcinomas, and plays a role as a multifunctional coreceptor.CD109 reportedly associates with transforming growth factor (TGF)-β receptors and negatively regulates TGF-β signaling in keratinocytes. Additionally, CD109 is potentially related to signal transducer and activator of transcription-3 signaling and aberrant cell proliferation.