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

Catalog # CD9-H82E4



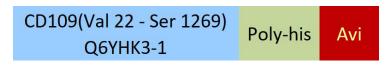
## Synonym

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<sup>TM</sup>).

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<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 µg by the LAL method.

# **Purity**

>95% as determined by SDS-PAGE.

#### **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**

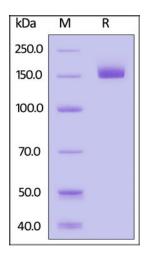
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

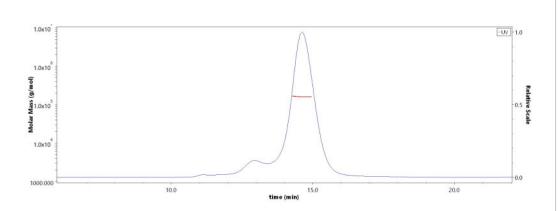
## **SDS-PAGE**



Biotinylated Human 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%.

# **Bioactivity-SPR**

#### **SEC-MALS**



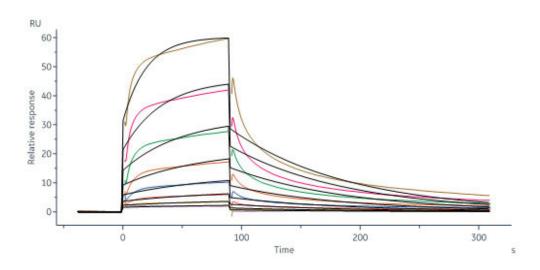
The purity of Biotinylated Human CD109, His, Avitag (Cat. No. CD9-H82E4) is more than 85% and the molecular weight of this protein is around 150-180 kDa verified by SEC-MALS.

Report

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

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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  $\mu$ M 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.

# **Clinical and Translational Updates**

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

