



Synonym

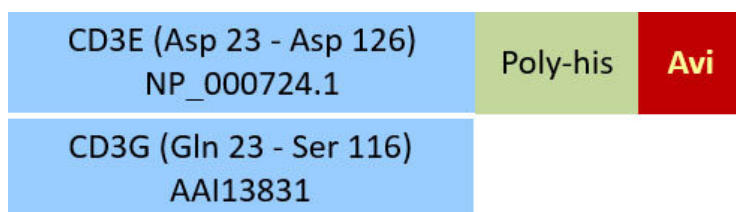
CD3 epsilon & CD3 gamma,CD3E & CD3G

Source

Biotinylated Human CD3E&CD3G Heterodimer Protein, His,Avitag&Tag Free(CDG-H82W3) is expressed from human 293 cells (HEK293). It contains AA Asp 23 - Asp 126 (CD3E) & Gln 23 - Ser 116 (CD3G) (Accession # [NP_000724.1](#) (CD3E) & [AAI13831](#) (CD3G)).

Predicted N-terminus: Asp 23 (CD3E)

Molecular Characterization



Biotinylated Human CD3E&CD3G Heterodimer Protein, His,Avitag&Tag Free is produced by co-expression of CD3E and CD3G, has a calculated MW of 18.6 kDa (CD3E) and 14.7 kDa (CD3G). Subunit CD3E is fused with a polyhistidine tag at the C-terminus, followed by an Avi tag and subunit CD3G contains no tag at the C-terminus. The reducing (R) heterodimer protein migrates as 20-24 kDa and 25-28 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) 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

>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

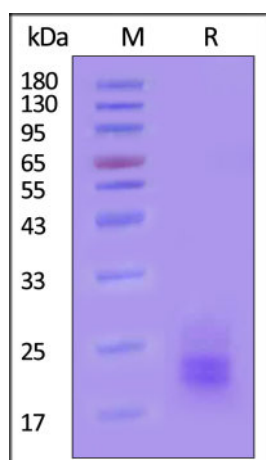
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

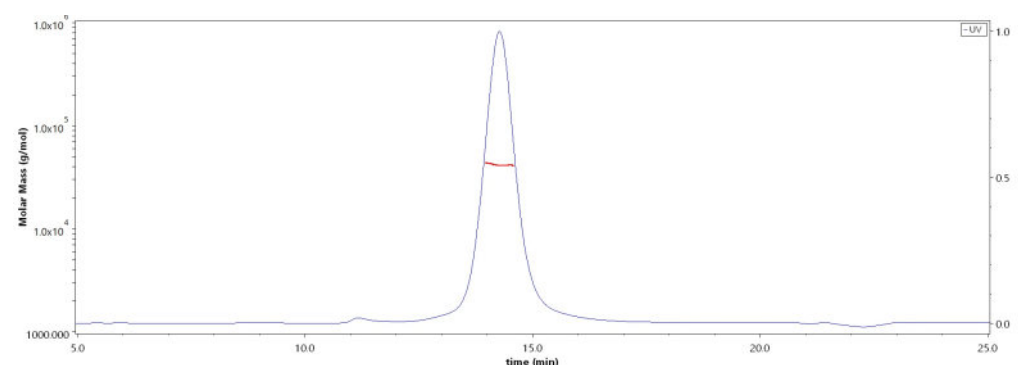
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Biotinylated Human CD3E&CD3G Heterodimer Protein, His,Avitag&Tag Free on SDS-PAGE under reducing (R) condition. The gel was stained with

SEC-MALS



The purity of Biotinylated Human CD3E&CD3G Heterodimer Protein, His,Avitag&Tag Free (Cat. No. CDG-H82W3) is more than 90% and the

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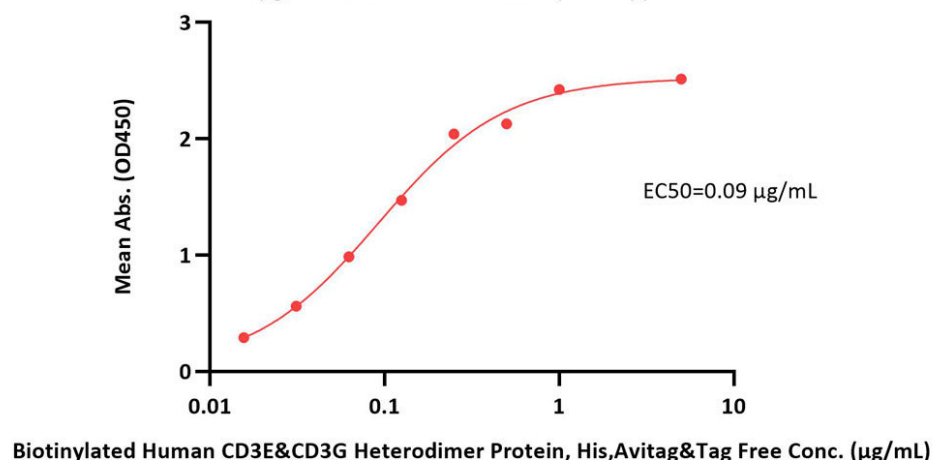


Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

molecular weight of this protein is around 35-52kDa verified by SEC-MALS. [Report](#)

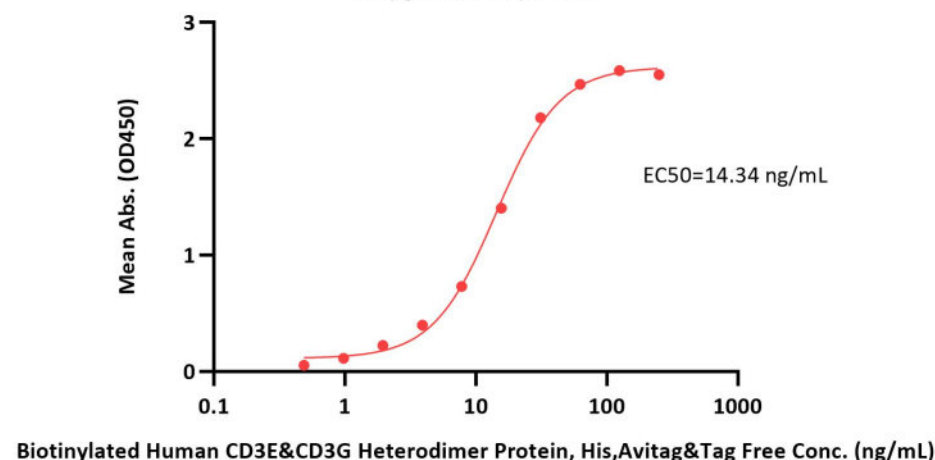
Bioactivity-ELISA

Biotinylated Human CD3E&CD3G Heterodimer Protein, His,Avitag&Tag Free ELISA
0.1 µg of Mouse Anti-Human CD3 (SP34-2) per well



Immobilized Mouse Anti-Human CD3 (SP34-2) at 1 µg/mL (100 µL/well) can bind Biotinylated Human CD3E&CD3G Heterodimer Protein, His,Avitag&Tag Free (Cat. No. CDG-H82W3) with a linear range of 0.016-0.25 µg/mL (QC tested).

Biotinylated Human CD3E&CD3G Heterodimer Protein, His,Avitag&Tag Free ELISA
0.1 µg of UCHT1 per well



Immobilized UCHT1 at 1 µg/mL (100 µL/well) can bind Biotinylated Human CD3E&CD3G Heterodimer Protein, His,Avitag&Tag Free (Cat. No. CDG-H82W3) with a linear range of 0.5-31 ng/mL (Routinely tested).

Background

T-cell surface glycoprotein CD3 delta & CD3 gamma chain, also known as CD3D & CD3G or CD3D&CD3G respectively, are single-pass type I membrane proteins. CD3D, together with CD3- epsilon(CD3E) , CD3-gamma and CD3-zeta, and the T-cell receptor alpha/beta and gamma/delta heterodimers, forms the T cell receptor-CD3 complex. T cell receptor-CD3 complex plays an important role in coupling antigen recognition to several intracellular signal-transduction pathways.

Clinical and Translational Updates

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