

Synonym

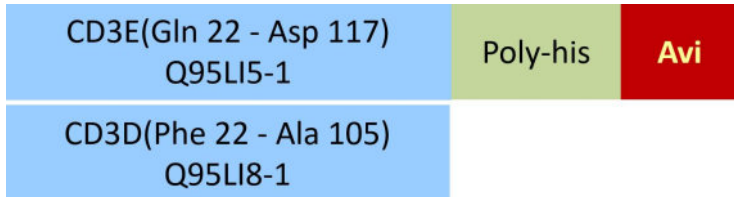
CD3E & CD3D,CD3 delta & CD3 epsilon

Source

Biotinylated Cynomolgus CD3E&CD3D Heterodimer Protein, His,Avitag&Tag Free(CDD-C82W6) is expressed from human 293 cells (HEK293). It contains AA Gln 22 - Asp 117 (CD3E) & Phe 22 - Ala 105 (CD3D) (Accession # [Q95LI5-1](#) (CD3E) & [Q95LI8-1](#) (CD3D)).

Predicted N-terminus: Gln 22 (CD3E) & Phe 22 (CD3D)

Molecular Characterization



Biotinylated Cynomolgus CD3E&CD3D Heterodimer Protein, His,Avitag&Tag Free is produced by co-expression of CD3E and CD3D, has a calculated MW of 17.8 kDa (CD3E) and 13.5 kDa (CD3D). Subunit CD3E is fused with a polyhistidine tag and followed by an Avi tag (Avitag™) and subunit CD3D contains no tag at the C-terminus. The reducing (R) heterodimer protein migrates as 21-23 kDa (CD3E) and 19-21 kDa (CD3D) 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

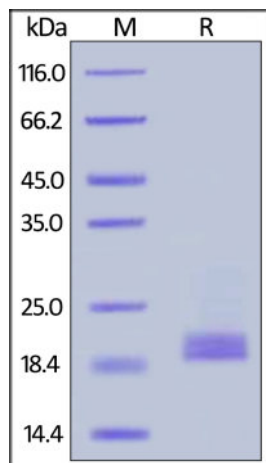
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

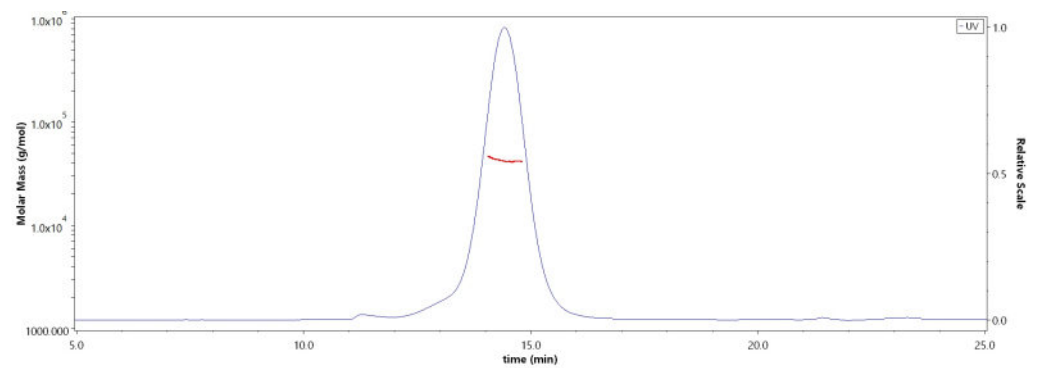
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



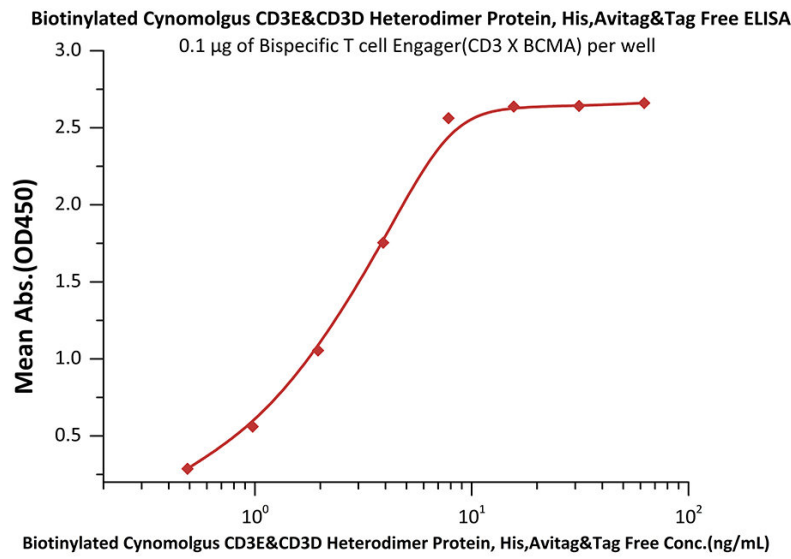
Biotinylated Cynomolgus CD3E&CD3D Heterodimer Protein, His,Avitag&Tag Free on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90%.

SEC-MALS



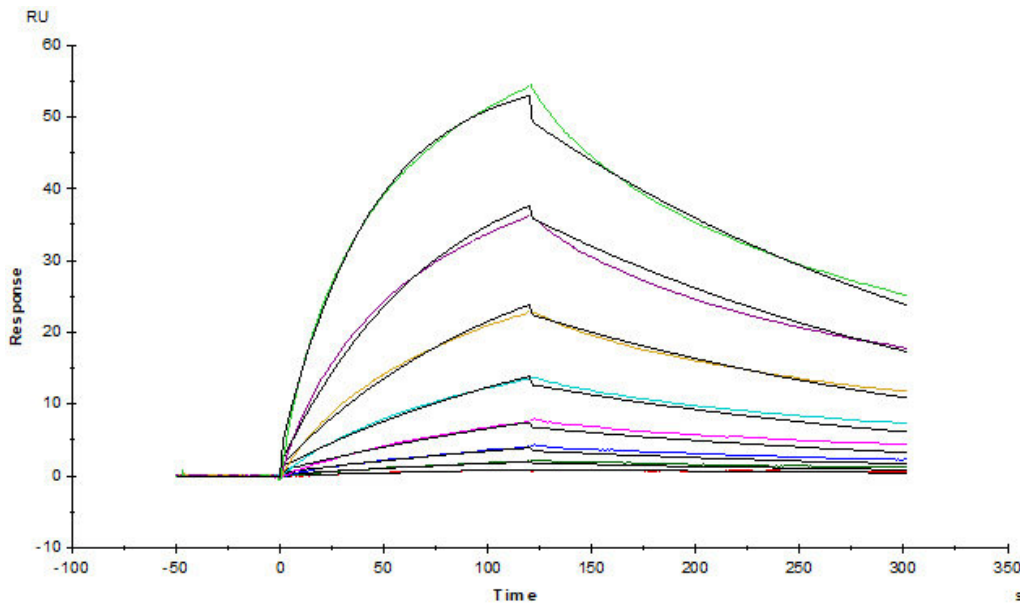
The purity of Biotinylated Cynomolgus CD3E&CD3D Heterodimer Protein, His,Avitag&Tag Free (Cat. No. CDD-C82W6) is more than 90% and the molecular weight of this protein is around 38-50 kDa verified by SEC-MALS. [Report](#)

Bioactivity-ELISA



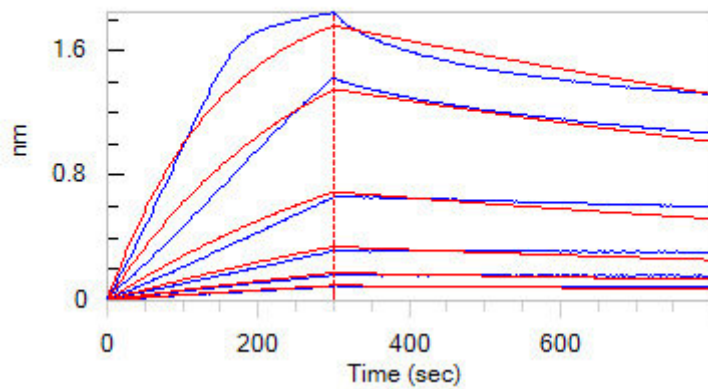
Immobilized Bispecific T cell Engager (CD3 X BCMA) at 1 µg/mL (100 µL/well) can bind Biotinylated Cynomolgus CD3E&CD3D Heterodimer Protein, His,Avitag&Tag Free (Cat. No. CDD-C82W6) with a linear range of 0.5-3.9 ng/mL (Intact assay, QC tested).

Bioactivity-SPR



Bispecific T-cell Engager (CD3 X BCMA) immobilized on CM5 Chip can bind Biotinylated Cynomolgus CD3E&CD3D Heterodimer Protein, His,Avitag&Tag Free (Cat. No. CDD-C82W6) with an affinity constant of 53.5 nM as determined in a SPR assay (Biacore T200) (Routinely tested).

Bioactivity-BLI



Catalog # CDD-C82W6

Loaded Biotinylated Cynomolgus CD3E&CD3D Heterodimer Protein, His,Avitag&Tag Free (Cat. No. CDD-C82W6) on SA Biosensor, can bind Human CD ×BCMA scFV with an affinity constant of 1.84 nM as determined in BLI assay (ForteBio Octet Red9e) (Routinely tested).

Background

T-cell surface glycoprotein CD3 delta & CD3 epsilon chain, also known as CD3D & CD3E or CD3D&CD3E 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

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