



### Synonym

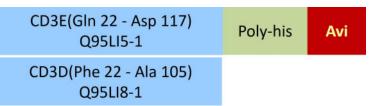
CD3E & CD3D,CD3 delta & CD3 epsilon

### 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 # <u>Q95LI5-1</u> (CD3E) & <u>Q95LI8-1</u> (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<sup>TM</sup>) 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) when calibrated against <u>Star</u> <u>Ribbon Pre-stained Protein Marker</u> due to glyosylation.

### Labeling

Biotinylation of this product is performed using Avitag<sup>™</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  $\mu g$  by the LAL method.

### Purity

>90% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

### 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

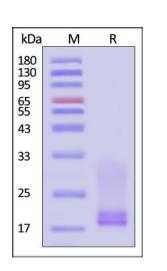
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.





## SEC-MALS





Biotinylated Cynomolgus CD3E&CD3D Heterodimer Protein,

His, Avitag&Tag Free on SDS-PAGE under reducing (R) condition. The gel

The purity of Biotinylated Cynomolgus CD3E&CD3D Heterodimer Protein, His,Avitag&Tag Free (Cat. No. CDD-C82W6) is more than 90% and the





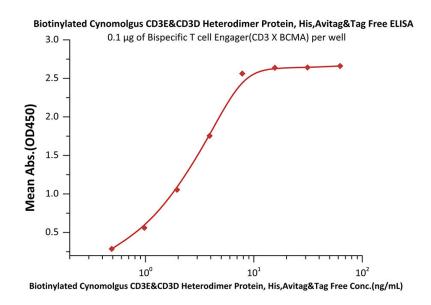
# Biotinylated Cynomolgus CD3E&CD3D Heterodimer Protein, His,Avitag™&Tag Free (MALS verified)



### Catalog # CDD-C82W6

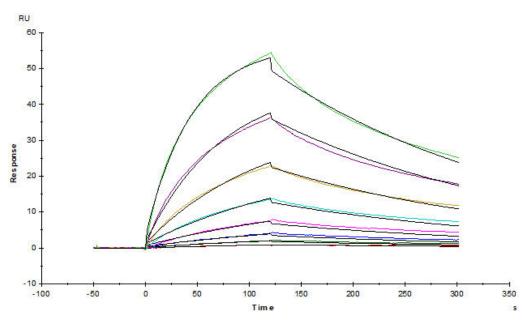
was stained with Coomassie Blue. The purity of the protein is greater than 90% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

### **Bioactivity-ELISA**



Immobilized Bispecific T cell Engager (CD3 X BCMA) at 1  $\mu$ g/mL (100  $\mu$ L/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**



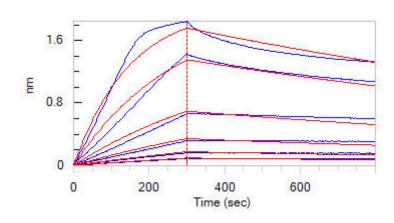
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## Biotinylated Cynomolgus CD3E&CD3D Heterodimer Protein, His,Avitag™&Tag Free (MALS verified)



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**



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