# Cynomolgus CD3 epsilon&CD3 delta Heterodimer Protein, His Tag&Flag Tag (MALS verified)

Catalog # CDD-C52W4



#### Synonym

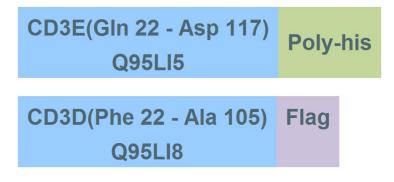
CD3E & CD3D,CD3 delta & CD3 epsilon

#### Source

Cynomolgus CD3E&CD3D Heterodimer Protein, His Tag&Flag Tag(CDD-C52W4) is expressed from human 293 cells (HEK293). It contains AA Gln 22 - Asp 117 (CD3E) & Phe 22 - Ala 105 (CD3D) (Accession # <u>Q95LI5</u> (CD3E) & <u>Q95LI8</u> (CD3D)).

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

## **Molecular Characterization**

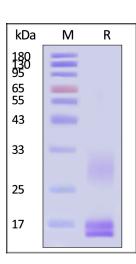


Cynomolgus CD3E&CD3D Heterodimer Protein, His Tag&Flag Tag is produced by co-expression of CD3E and CD3D, has a calculated MW of 15.5 kDa (CD3E) and 14.5 kDa (CD3D). Subunit CD3E is fused with his tag at the C-terminus and subunit CD3D is fused with flag tag at the C-terminus. The predicted N-terminus is Gln 22 (CD3E) and Phe 22 (CD3D). The reducing (R) heterodimer protein migrates as 15kDa, 17kDa, 27-32kDa when calibrated against <u>Star Ribbon Pre-</u> <u>stained Protein Marker</u> due to glyosylation.

### Endotoxin

Less than 1.0 EU per  $\mu$ g by the LAL method / rFC method.

### **SDS-PAGE**



## 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.

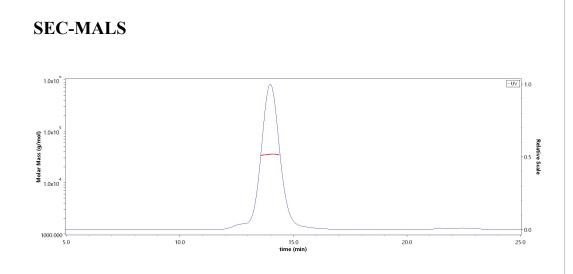
#### Storage

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.



Cynomolgus CD3E&CD3D Heterodimer Protein, His Tag&Flag Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With <u>Star Ribbon Pre-stained</u> <u>Protein Marker</u>).

**Bioactivity-ELISA** 

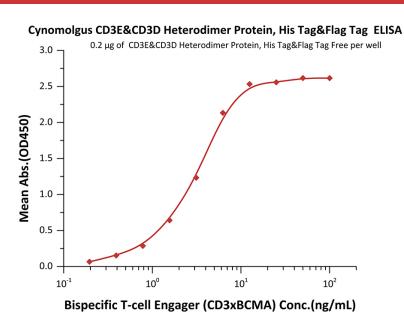
The purity of Cynomolgus CD3E&CD3D Heterodimer Protein, His Tag&Flag Tag (Cat. No. CDD-C52W4) is more than 90% and the molecular weight of this protein is around 33-50 kDa verified by SEC-MALS. <u>Report</u>



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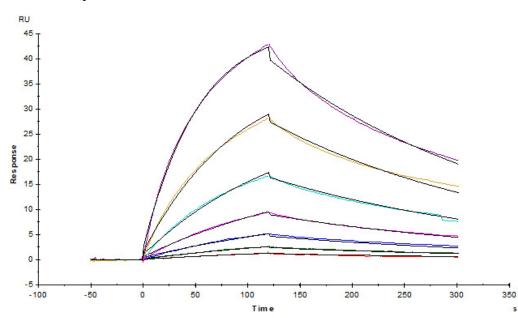


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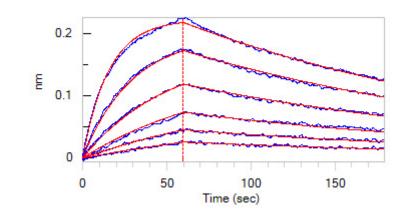
Immobilized Cynomolgus CD3E&CD3D Heterodimer Protein, His Tag & Flag Tag (Cat. No. CDD-C52W4) at 2  $\mu$ g/mL, add increasing concentrations of Bispecific T cell Engager (CD3 X BCMA) and then add Biotinylated BCMA Fc,Avitag (Cat. No. BC7-H82F0) at 0.2  $\mu$ g/mL. Detection was performed using HRP-conjugated streptavidin with sensitivity of 0.2 ng/mL (Intact assay, QC tested).

#### **Bioactivity-SPR**



Bispecific T-cell Engager (CD3 X BCMA) immobilized on CM5 Chip can bind Cynomolgus CD3 epsilon&CD3 delta Heterodimer Protein, His Tag&Flag Tag (Cat. No. CDD-C52W4) with an affinity constant of 64.4 nM as determined in a SPR assay (Biacore T200) (Routinely tested).

## **Bioactivity-BLI**





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Loaded Human CD3×BCMA scFV on AHC Biosensor via DMF Filed Human BCMA, Fc Tag (Cat. No. BC7-H5254), can bind Cynomolgus CD3E&CD3D Heterodimer Protein, His Tag&Flag Tag (Cat. No. CDD-C52W4) with an affinity constant of 8 nM as determined in BLI assay (ForteBio Octet Red96e) (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.



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