



### Synonym

FLJ18683,T3E,TCRE,CD3E,CD3-epsilon

### Source

Cynomolgus CD3 epsilon, His Tag(CDE-C5226) is expressed from human 293 cells (HEK293). It contains AA Gln 22 - Asp 117 (Accession # [Q95LI5-1](#)).

Predicted N-terminus: Gln 22

### Molecular Characterization

CD3 epsilon(Gln 22 - Asp 117)  
Q95LI5-1 Poly-his

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 16.1 kDa. The protein migrates as 18-23 kDa under reducing (R) condition, and 33-40 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under non-reducing (NR) condition (SDS-PAGE) due to glycosylation.

### 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

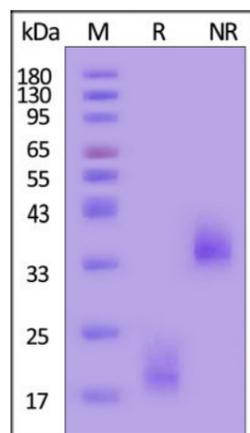
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*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.

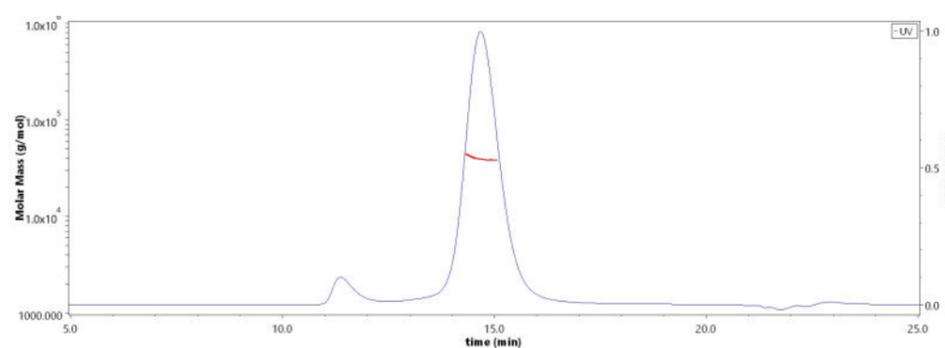
### SDS-PAGE



Cynomolgus CD3 epsilon, His Tag on SDS-PAGE under reducing (R) and non-reducing (NR) conditions. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

### Bioactivity-ELISA

### SEC-MALS



The purity of Cynomolgus CD3 epsilon, His Tag (Cat. No. CDE-C5226) is more than 90% and the molecular weight of this protein is around 35-45 kDa verified by SEC-MALS.

[Report](#)

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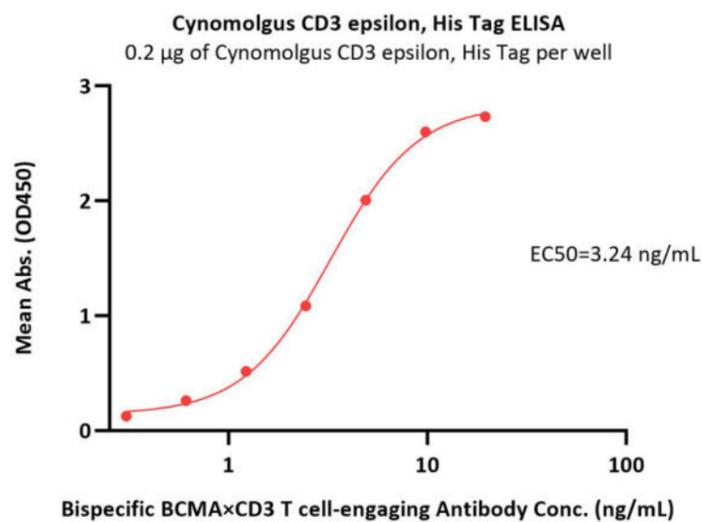


# Cynomolgus CD3 epsilon Protein, His Tag (MALS verified)

Catalog # CDE-C5226

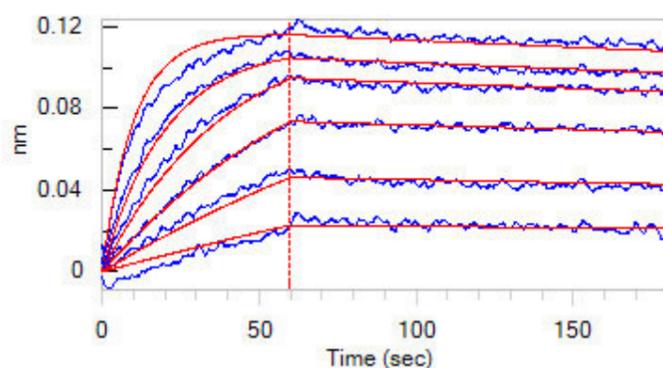


BIOSYSTEMS  
**Acro**

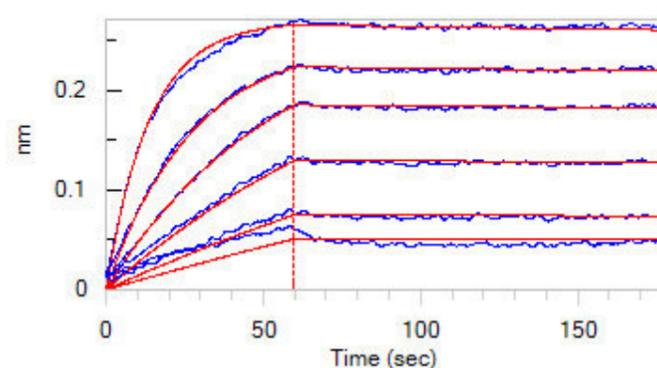


Immobilize Cynomolgus CD3 epsilon, His Tag (Cat. No. CDE-C5226) at 2 µg/mL, add increasing concentrations of Bispecific T cell Engager (CD3 X BCMA), and then add Biotinylated Human BCMA, Fc,Avitag (Cat. No. BC7-H82F0) at 0.2 µg/mL. Detection is performed using HRP-conjugated streptavidin. Binding occurs at a linear range of 1-5 ng/mL (QC tested).

## Bioactivity-BLI



Loaded Anti-Human CD3 mAb, mouse IgG1 (Clone # SP3541-2) on AMC Biosensor, can bind Cynomolgus CD3 epsilon, His Tag (Cat. No. CDE-C5226) with an affinity constant of 0.305 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).



Loaded Bispecific T-cell Engager (CD3 X BCMA) on AHC Biosensor via DMF Filled Human BCMA, Fc Tag (Cat. No. BC7-H525541), can bind Cynomolgus CD3 epsilon, His Tag (Cat. No. CDE-C5226) with an affinity constant of 0.113 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

## Background

CD3ε molecule, epsilon is also known as CD3E, is a T-cell surface single-pass type I membrane glycoprotein. CD3E contains 1 Ig-like (immunoglobulin-like) domain and 1 ITAM domain. CD3E, together with CD3-gamma, CD3-delta and CD3-zeta, and the T-cell receptor alpha/beta and gamma/delta heterodimers, forms the T cell receptor-CD3 complex. This complex plays an important role in coupling antigen recognition to several intracellular signal-transduction pathways. The genes encoding the epsilon, gamma and delta polypeptides are located in the same cluster on chromosome 11. The epsilon polypeptide plays an essential role in T-cell development. CD3E plays an essential role in T-cell development, and defects in CD3E gene cause severe immunodeficiency. CD3E gene has also been linked to a susceptibility to type I diabetes in women. CD3E has been shown to interact with TOP2B, CD3EAP and NCK2.

## Clinical and Translational Updates

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.

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