

**Synonym**

CD3E & CD3D, CD3 delta & CD3 epsilon

**Source**

Mouse CD3E&CD3D Heterodimer Protein, His Tag&Flag Tag(CDD-M5219) is expressed from human 293 cells (HEK293). It contains AA Asp 23 - Asp 108 (CD3E) & Phe 22 - Ala 105 (CD3D) (Accession # [P22646-1](#) (CD3E) & [P04235-1](#) (CD3D)).

Predicted N-terminus: Asp 23 (CD3E) & Phe 22 (CD3D)

**Molecular Characterization**

CD3E (Asp 23 - Asp 108) P22646-1	Poly-his
CD3D (Phe 22 - Ala 105) P04235-1	Flag

Mouse CD3E&CD3D Heterodimer Protein, His Tag&Flag Tag is produced by co-expression of CD3E and CD3D, has a calculated MW of 15.1 kDa (CD3E) and 14.3 kDa (CD3D). Subunit CD3E is fused with a polyhistidine tag at the C-terminus and subunit CD3D is fused with a flag tag at the C-terminus. As a result of glycosylation, the heterodimer protein migrates as 18-19 kDa and 25-32 kDa under reducing (R) condition, and 38-47 kDa under non-reducing (NR) condition (SDS-PAGE).

**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**

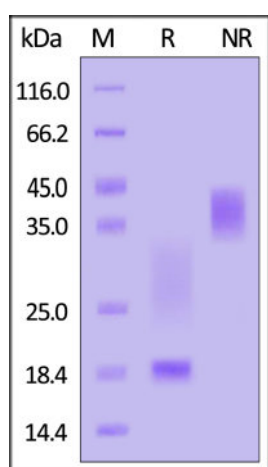
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*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.

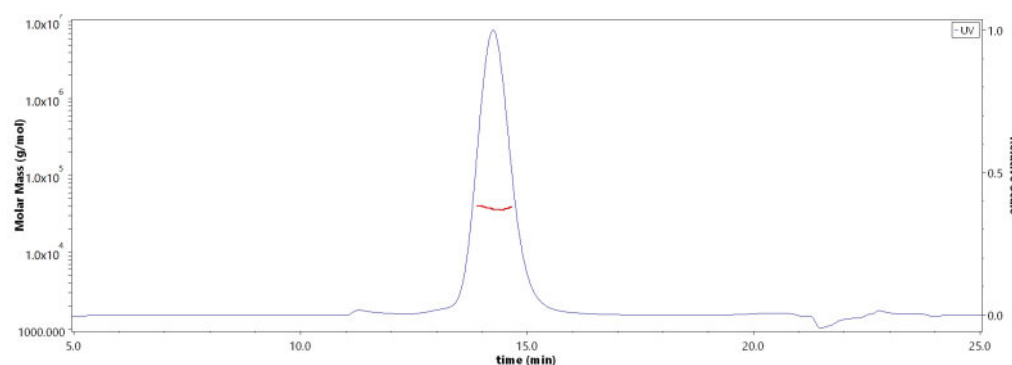
**SDS-PAGE**



Mouse CD3E&CD3D Heterodimer Protein, His Tag&Flag 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%.

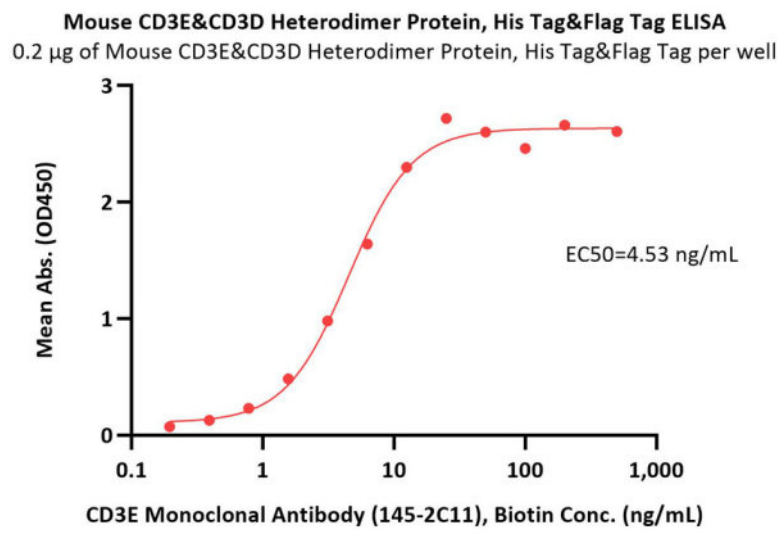
**Bioactivity-ELISA**

**SEC-MALS**



The purity of Mouse CD3E&CD3D Heterodimer Protein, His Tag&Flag Tag (Cat. No. CDD-M5219) is more than 90% and the molecular weight of this protein is around 32-45 kDa verified by SEC-MALS.

[Report](#)



Immobilized Mouse CD3E&CD3D Heterodimer Protein, His Tag&Flag Tag (Cat. No. CDD-M5219) at 2 µg/mL (100 µL/well) can bind CD3E Monoclonal Antibody (145-2C11), Biotin with a linear range of 0.2-13 ng/mL (QC 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](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.