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

Catalog # CDD-M5219



### 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  $\mu g$  by the LAL method / rFC 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

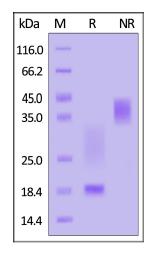
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

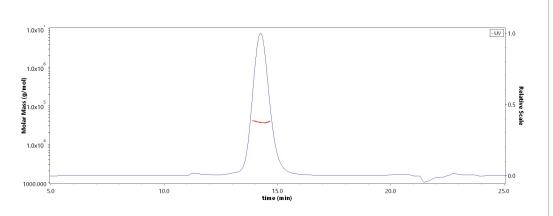
# **SDS-PAGE**



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.

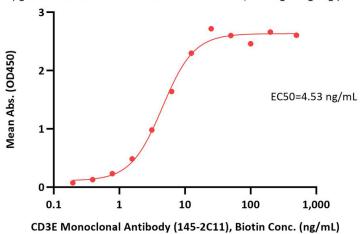
Report

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

Catalog # CDD-M5219



Mouse CD3E&CD3D Heterodimer Protein, His Tag&Flag Tag ELISA 0.2  $\mu g$  of Mouse CD3E&CD3D Heterodimer Protein, His Tag&Flag Tag per well



Immobilized Mouse CD3E&CD3D Heterodimer Protein, His Tag&Flag Tag (Cat. No. CDD-M5219) at 2  $\mu$ g/mL (100  $\mu$ L/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.

