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

Catalog # CDD-R52D8



### **Synonym**

CD3E & CD3D,CD3 delta & CD3 epsilon

#### Source

Rat CD3E&CD3D Heterodimer Protein, His Tag&Flag Tag(CDD-R52D8) is expressed from human 293 cells (HEK293). It contains AA Gln 21 - Asp 103 (CD3E) & Phe 22 - Gly 106 (CD3D) (Accession # D4A5M2-1 (CD3E) & P19377-1 (CD3D)).

Predicted N-terminus: Gln 21 (CD3E) & Phe 22 (CD3D)

### **Molecular Characterization**

CD3E (Gln 21 - Asp 103) D4A5M2-1	Poly-his
CD3D (Phe 22 - Gly 106) P19377-1	Flag

Rat CD3E&CD3D Heterodimer Protein, His Tag&Flag Tag is produced by coexpression of CD3E and CD3D, has a calculated MW of 14.9 kDa (CD3E) and 14.5 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 19-20 kDa and 27-33 kDa under reducing (R) condition, and 37-40 kDa when calibrated against Star Ribbon Pre-stained Protein Marker 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  $0.22~\mu m$  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

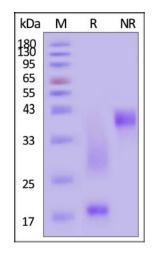
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

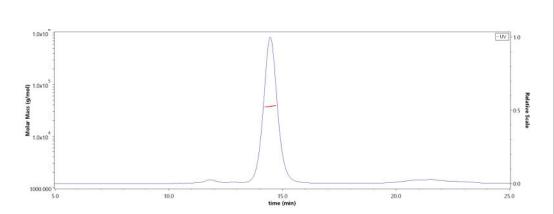
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

## **SDS-PAGE**



Rat 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% (With Star Ribbon Pre-stained Protein Marker).

## **SEC-MALS**



The purity of Rat CD3E&CD3D Heterodimer Protein, His Tag&Flag Tag (Cat. No. CDD-R52D8) is more than 90% and the molecular weight of this protein is around 35-45 kDa verified by SEC-MALS.

<u>Report</u>

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# **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 <u>TechSupport@acrobiosystems.com</u> if you have any question on this product.

