

**Synonym**

CD3 epsilon &amp; CD3 gamma, CD3E &amp; CD3G

**Source**

Mouse CD3 epsilon&CD3 gamma Heterodimer Protein, His Tag&Flag Tag (CDG-M52D2) is expressed from human 293 cells (HEK293). It contains AA Asp 23 - Asp 108 (CD3E) & Gln 23 - Ser 116 (CD3G) (Accession # [P22646-1](#) (CD3E) & [P11942-1](#) (CD3G)).

Predicted N-terminus: Asp 23 (CD3E) &amp; Gln 23 (CD3G)

**Molecular Characterization**

CD3E (Asp 23 - Asp 108) P22646-1	Poly-his
CD3G (Gln 23 - Ser 116) P11942-1	Flag

Mouse CD3 epsilon&CD3 gamma Heterodimer Protein, His Tag&Flag Tag is produced by co-expression of CD3E and CD3G, has a calculated MW of 15.1 kDa (CD3E) and 15.2 kDa (CD3G). Subunit CD3E is fused with a polyhistidine tag at the C-terminus and subunit CD3G is fused with a flag tag at the C-terminus. As a result of glycosylation, the protein migrates as 19-22 kDa under reducing (R) condition, and 35 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under non-reducing (NR) condition (SDS-PAGE).

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

&gt;95% as determined by SDS-PAGE.

&gt;95% 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.

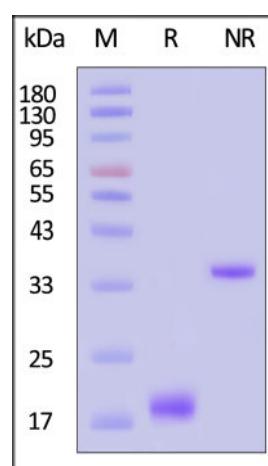
*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.***Storage**

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

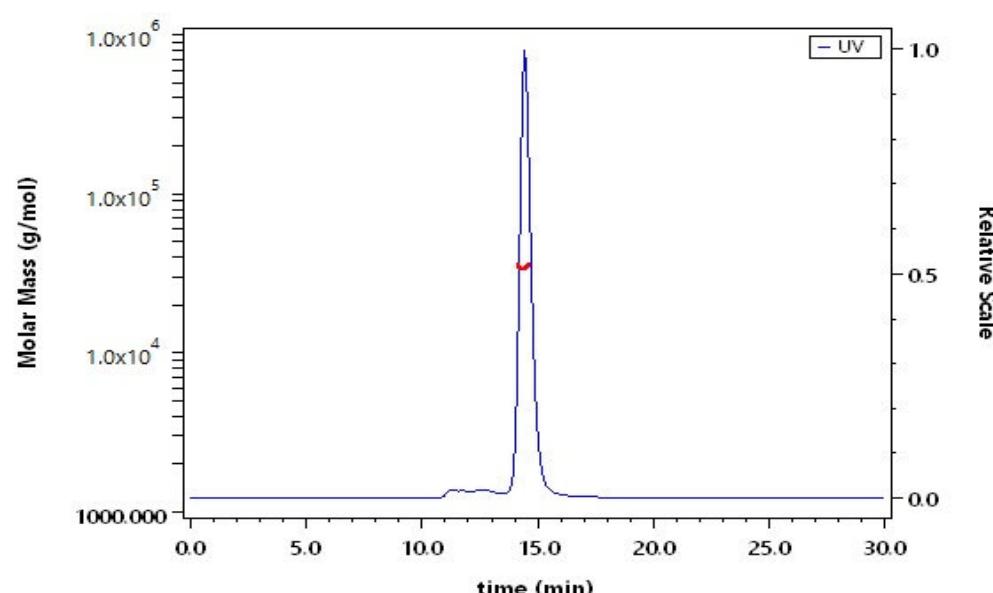
*Please avoid repeated freeze-thaw cycles.*

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 CD3 epsilon&CD3 gamma 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 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

**SEC-MALS**

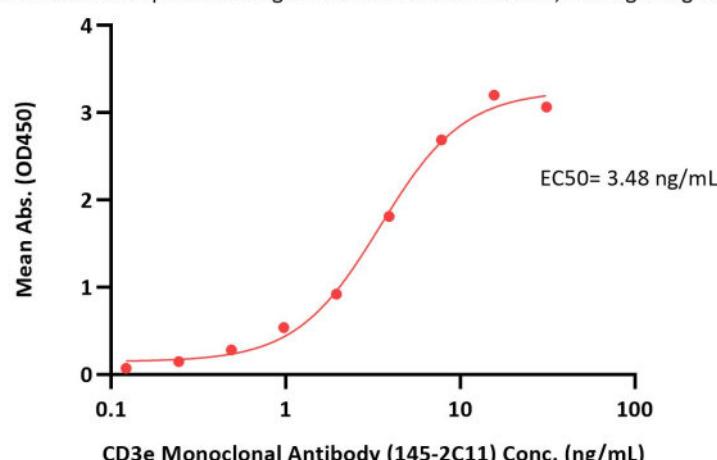
The purity of Mouse CD3 epsilon&CD3 gamma Heterodimer Protein, His Tag&Flag Tag (Cat. No. CDG-M52D2) is more than 95% and the molecular weight of this protein is around 30-40 kDa verified by SEC-MALS.

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## Bioactivity-ELISA

**Mouse CD3 epsilon&CD3 gamma Heterodimer Protein, His Tag&Flag Tag ELISA**  
 0.1 µg of Mouse CD3 epsilon&CD3 gamma Heterodimer Protein, His Tag&Flag Tag per well



Immobilized Mouse CD3 epsilon&CD3 gamma Heterodimer Protein, His Tag&Flag Tag (Cat. No. CDG-M52D2) at 1 µg/mL (100 µL/well) can bind CD3e Monoclonal Antibody (145-2C11) with a linear range of 0.1-4 ng/mL (QC tested).

## Background

T-cell surface glycoprotein CD3 delta & CD3 gamma chain, also known as CD3D & CD3G or CD3D&CD3G 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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