Human CD3 epsilon&CD3 gamma Heterodimer Protein, Fc Tag&Fc Tag (MALS verified)

Catalog # CDG-H5253

Synonym

CD3 epsilon & CD3 gamma,CD3E & CD3G

Source

Human CD3E&CD3G Heterodimer Protein, Fc Tag&Fc Tag(CDG-H5253) is expressed from human 293 cells (HEK293). It contains AA Asp 23 - Asp 126 (CD3E) & Gln 23 - Ser 116 (CD3G) (Accession # NP_000724.1 (CD3E) & AAI13831 (CD3G)).
Predicted N-terminus: Asp 23 (CD3E) & Gln 23 (CD3G)

Molecular Characterization

CD3E (Asp 23 - Asp 126) NP_000724.1	Fc(Pro 100 - Lys 330) P01857
CD3G (Gln 23 - Ser 116) AAI13831	Fc(Pro 100 - Lys 330) P01857

Human CD3E&CD3G Heterodimer Protein, Fc Tag&Fc Tag is produced by co-expression of CD3E and CD3G, has a calculated MW of 38.3 kDa (CD3E) and 36.9 kDa (CD3G). Subunit CD3E is fused with a human IgG1 Fc tag at the C-terminus and subunit CD3G is fused with a human IgG1 Fc tag at the C-terminus. As a result of glycosylation, the protein migrates as 43-55 kDa under reducing (R) condition, and 90-110 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 / rFC method.

Purity

>95% 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

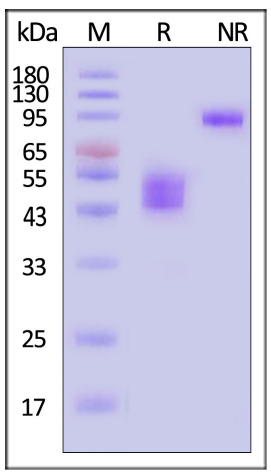
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

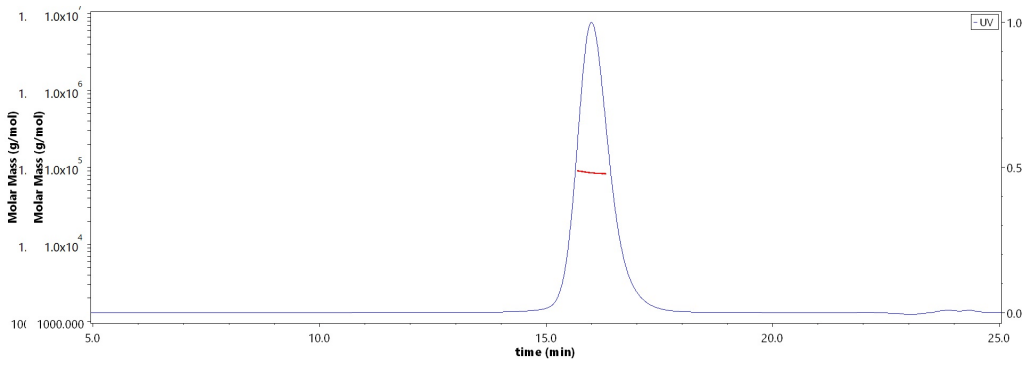
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Human CD3E&CD3G Heterodimer Protein, Fc Tag&Fc 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 Human CD3E&CD3G Heterodimer Protein, Fc Tag&Fc Tag (Cat. No. CDG-H5253) is more than 90% and the molecular weight of this protein is around 80-90 kDa verified by SEC-MALS.
Report

Bioactivity-ELISA

Human CD3 epsilon&CD3 gamma Heterodimer Protein, Fc Tag&Fc Tag (MALS verified)

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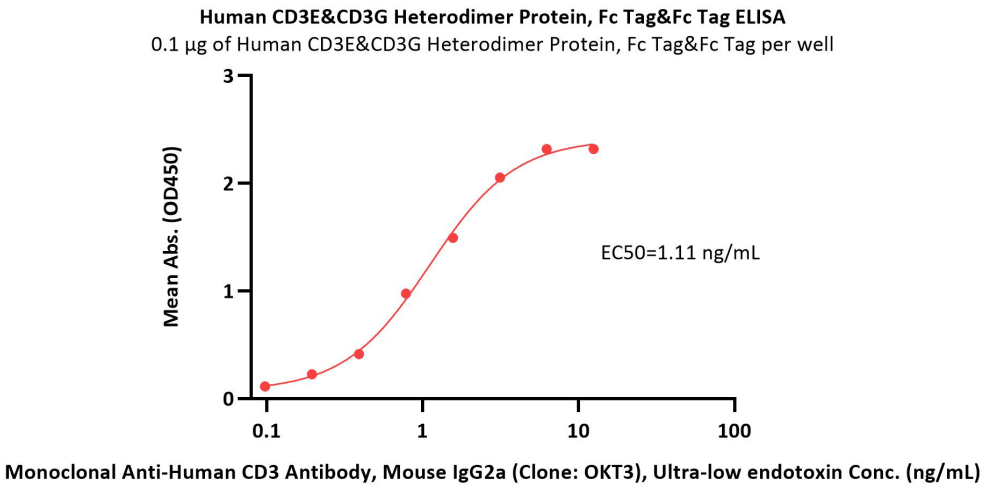
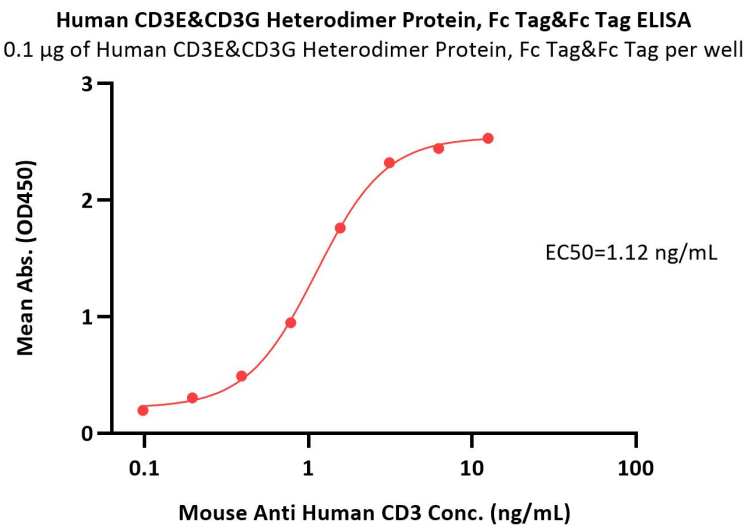
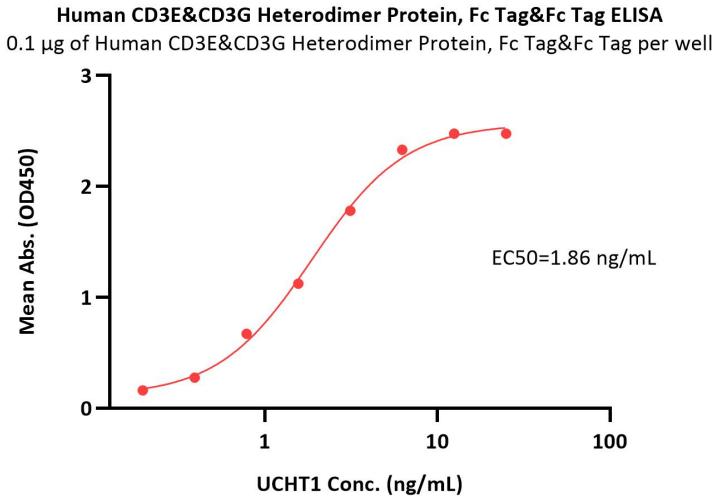


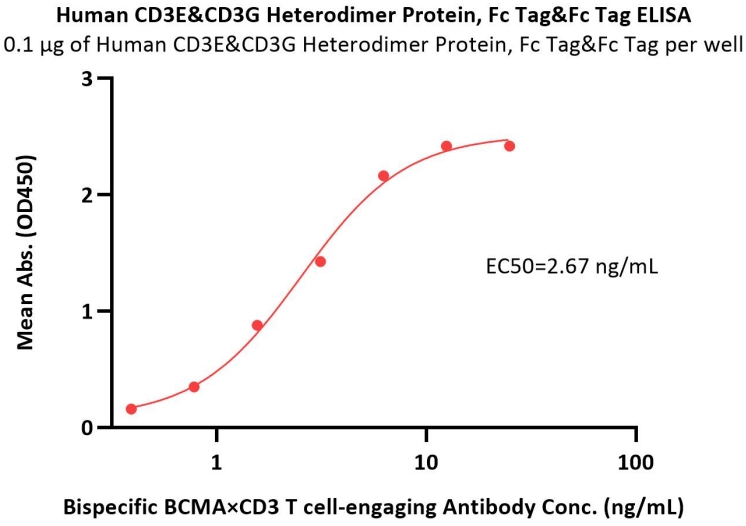
Immobilized Human CD3E&CD3G Heterodimer Protein, Fc Tag&Fc Tag (Cat. No. CDG-H5253) at 1 μg/mL (100 μL/well) can bind Monoclonal Anti-Human CD3 Antibody, Mouse IgG2a (Clone: OKT3), premium grade (Cat. No. CDE-M120a) with a linear range of 0.8-3 ng/mL (QC tested).



Immobilized Human CD3E&CD3G Heterodimer Protein, Fc Tag&Fc Tag (Cat. No. CDG-H5253) at 1 μg/mL (100 μL/well) can bind Mouse Anti Human CD3 with a linear range of 0.8-2 ng/mL (Routinely tested).



Immobilized Human CD3E&CD3G Heterodimer Protein, Fc Tag&Fc Tag (Cat. No. CDG-H5253) at 1 μg/mL (100 μL/well) can bind UCHT1 with a linear range of 0.8-3 ng/mL (Routinely tested).



Immobilized Human CD3E&CD3G Heterodimer Protein, Fc Tag&Fc Tag (Cat. No. CDG-H5253) at 1 μg/mL (100 μL/well) can bind Bispecific BCMA×CD3 T cell-engaging Antibody with a linear range of 0.8-3 ng/mL (Routinely 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.