

Synonym

CD3 epsilon & CD3 gamma,CD3E & CD3G

Source

Human CD3E&CD3G Heterodimer Protein, His Tag&Tag Free(CDG-H52W5) is expressed from human 293 cells (HEK293). It contains AA Asp 23 - Asp 126 (CD3E) & Gln 23 - Ser 116 (CD3G) (Accession # [P07766-1](#) (CD3E) & [P09693-1](#) (CD3G)).
Predicted N-terminus: Asp 23 (CD3E) & Gln 23 (CD3G)

Molecular Characterization

CD3E (Asp 23 - Asp 126) P07766-1	Poly-his
CD3G (Gln 23 - Ser 116) P09693-1	

Human CD3E&CD3G Heterodimer Protein, His Tag&Tag Free is produced by co-expression of CD3E and CD3G, has a calculated MW of 16.9 kDa (CD3E) and 14.6 kDa (CD3G). Subunit CD3E is fused with a polyhistidine tag at the C-terminus and subunit CD3G contains no tag at the C-terminus. The reducing (R) heterodimer protein migrates as 19 kDa and 21-28 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) due to glycosylation.

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

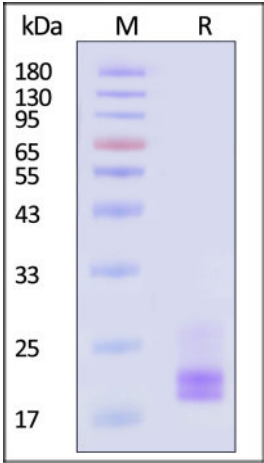
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

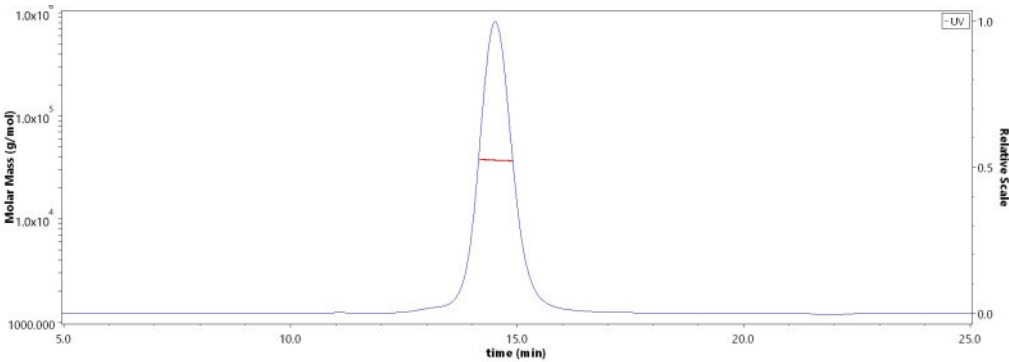
SDS-PAGE



Human CD3E&CD3G Heterodimer Protein, His Tag&Tag Free on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

Bioactivity-ELISA

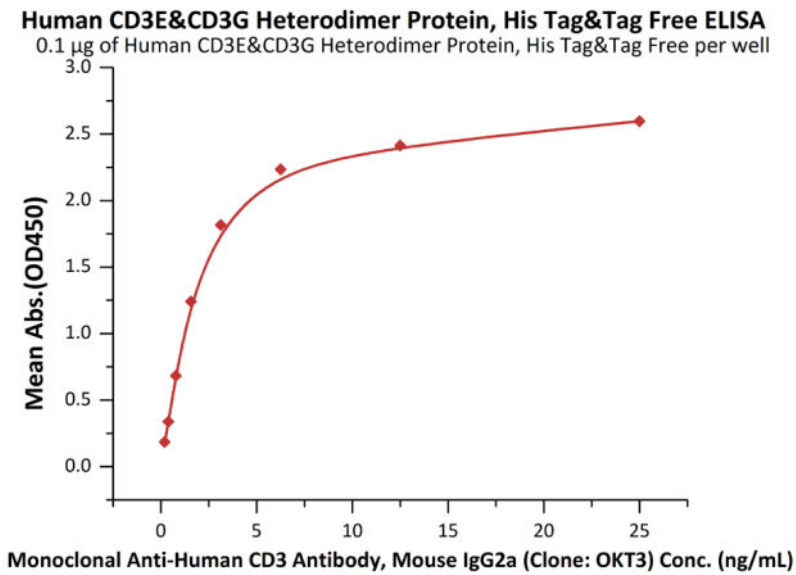
SEC-MALS



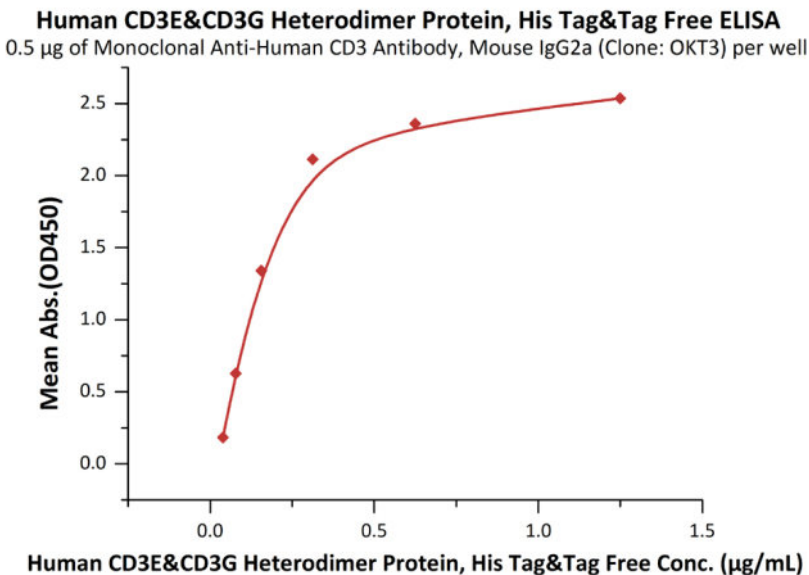
The purity of Human CD3E&CD3G Heterodimer Protein, His Tag&Tag Free (Cat. No. CDG-H52W5) is more than 90% and the molecular weight of this protein is around 30-40 kDa verified by SEC-MALS. [Report](#)

Discounts, Gifts,
and more!

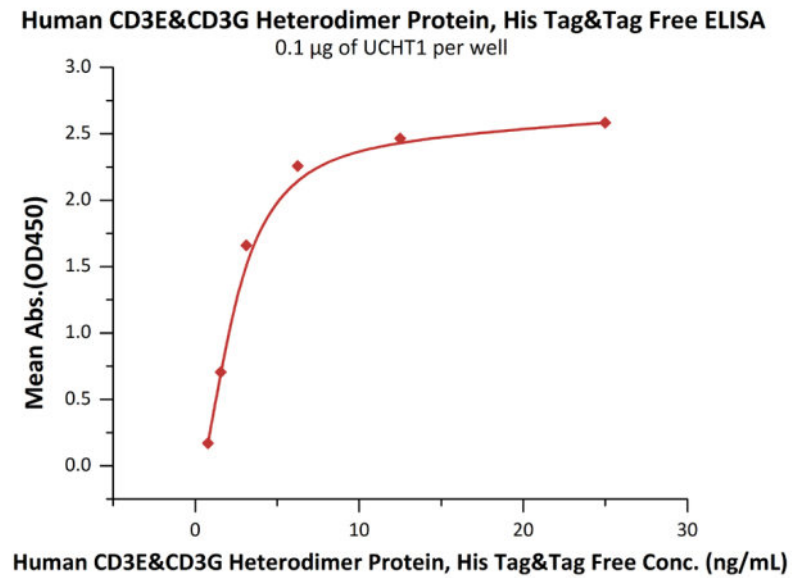




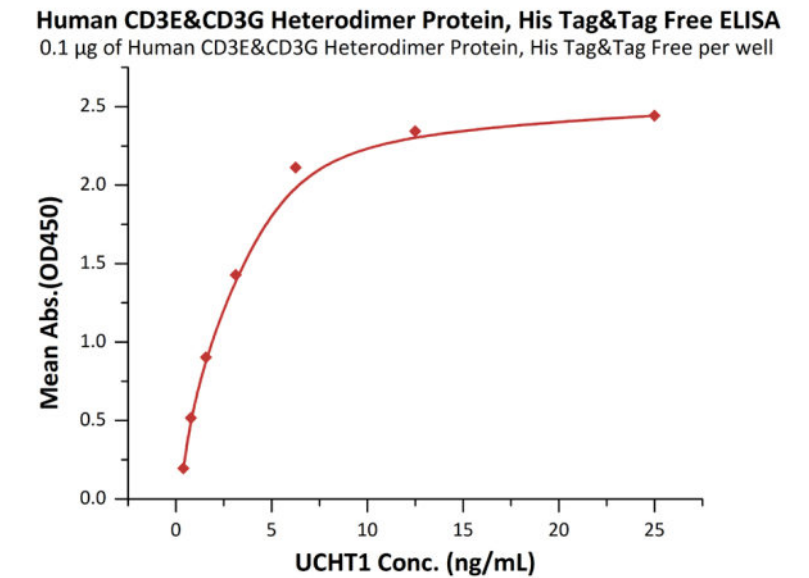
Immobilized Human CD3E&CD3G Heterodimer Protein, His Tag&Tag Free (Cat. No. CDG-H52W5) at 1 µg/mL (100 µL/well) can bind Monoclonal Anti-Human CD3 Antibody, Mouse IgG2a (Clone: OKT3) with a linear range of 0.1-3 ng/mL (QC tested).



Immobilized Monoclonal Anti-Human CD3 Antibody, Mouse IgG2a (Clone: OKT3) at 5 µg/mL (100 µL/well) can bind Human CD3E&CD3G Heterodimer Protein, His Tag&Tag Free (Cat. No. CDG-H52W5) with a linear range of 0.039-0.156 µg/mL (Routinely tested).

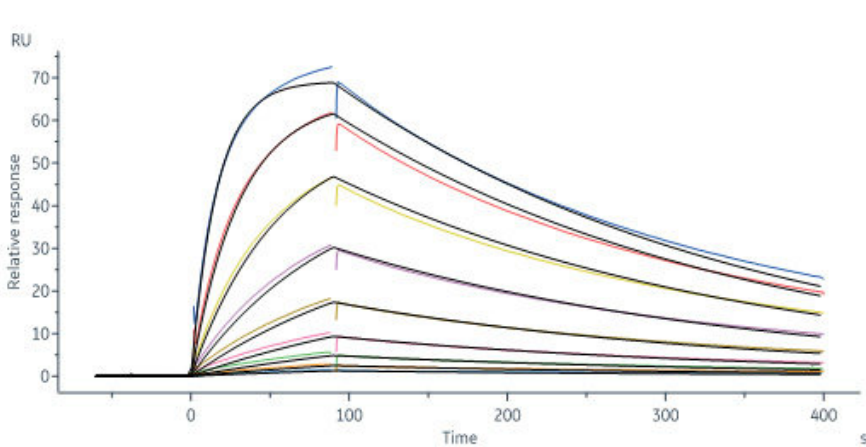


Immobilized UCHT1 at 1 µg/mL (100 µL/well) can bind Human CD3E&CD3G Heterodimer Protein, His Tag&Tag Free (Cat. No. CDG-H52W5) with a linear range of 0.8-3 ng/mL (Routinely tested).

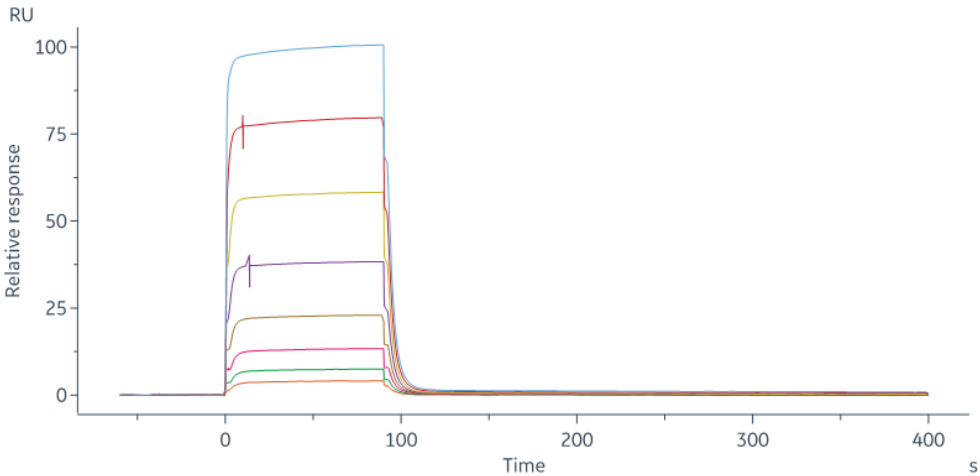


Immobilized Human CD3E&CD3G Heterodimer Protein, His Tag&Tag Free (Cat. No. CDG-H52W5) at 1 µg/mL (100 µL/well) can bind UCHT1 with a linear range of 0.4-3 ng/mL (Routinely tested).

Bioactivity-SPR



Monoclonal Anti-Human CD3 Antibody, Mouse IgG1 (SP34-2) (Cat. No. CDE-M531) captured on CM5 chip via anti-mouse antibodies surface can bind Human CD3E&CD3G Heterodimer Protein, His Tag&Tag Free (Cat. No. CDG-H52W5) with an affinity constant of 13.4 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).



Monoclonal Anti-Human CD3 Antibody, Mouse IgG2a (Clone: OKT3), premium grade (Cat. No. CDE-M120a) captured on CM5 chip via anti-mouse antibodies surface can bind Human CD3E&CD3G Heterodimer Protein, His Tag&Tag Free (Cat. No. CDG-H52W5) with an affinity constant of 810 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

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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.

Clinical and Translational Updates

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