

Synonym

CD3 epsilon & CD3 gamma, CD3E & CD3G

Source

Human CD3E&CD3G Heterodimer Protein, Fc,His Tag&Fc,Flag Tag(CDG-H52W9) 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	Fc(Pro 100 - Lys 330) P01857	Poly-his
CD3G (Gln 23 - Ser 116) P09693-1	Fc(Pro 100 - Lys 330) P01857	Flag

Human CD3E&CD3G Heterodimer Protein, Fc,His Tag&Fc,Flag Tag is produced by co-expression of CD3E and CD3G, has a calculated MW of 39.2 kDa (CD3E) and 38.6 kDa (CD3G). Subunit CD3E is fused with a human IgG1 Fc tag at the C-terminus, followed by a polyhistidine tag, and subunit CD3G is fused with a human IgG1 Fc tag at the C-terminus, followed by a Flag tag. The predicted N-terminus is Asp 23 (CD3E) & Gln 23 (CD3G). The reducing (R) heterodimer protein migrates as 40-50 kDa due to glycosylation.

Endotoxin

Less than 1.0 EU per µg by the LAL 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.

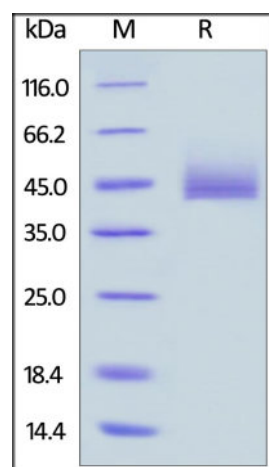
Storage

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

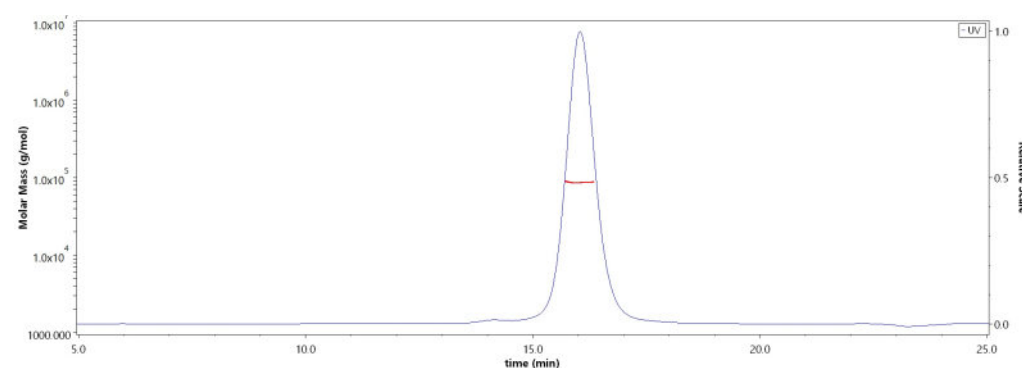
Please avoid repeated freeze-thaw cycles.

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

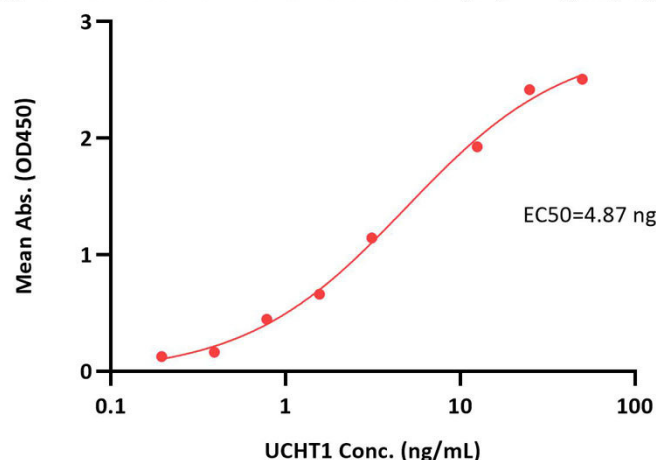
Human CD3E&CD3G Heterodimer Protein, Fc,His Tag&Fc,Flag Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-ELISA**SEC-MALS**

The purity of Human CD3E&CD3G Heterodimer Protein, Fc,His Tag&Fc,Flag Tag (Cat. No. CDG-H52W9) is more than 90% and the molecular weight of this protein is around 80-95 kDa verified by SEC-MALS.

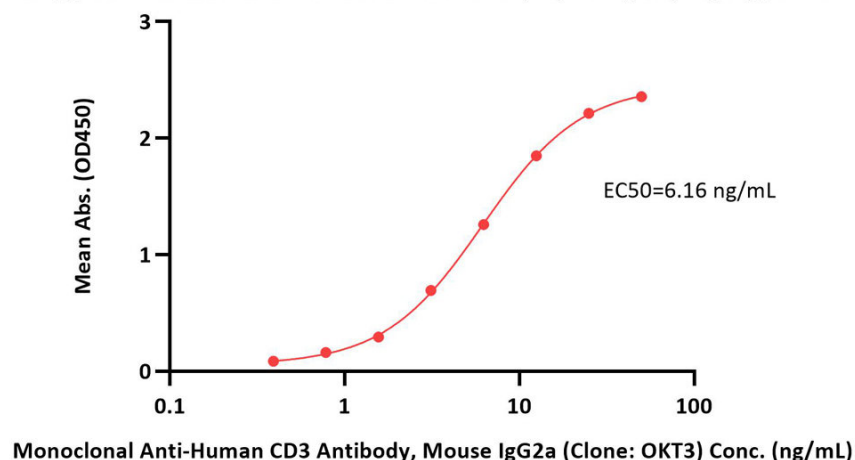
[Report](#)

Human CD3E&CD3G Heterodimer Protein, Fc,His Tag&Fc,Flag Tag ELISA
0.2 µg of Human CD3E&CD3G Heterodimer Protein, Fc,His Tag&Fc,Flag Tag per well



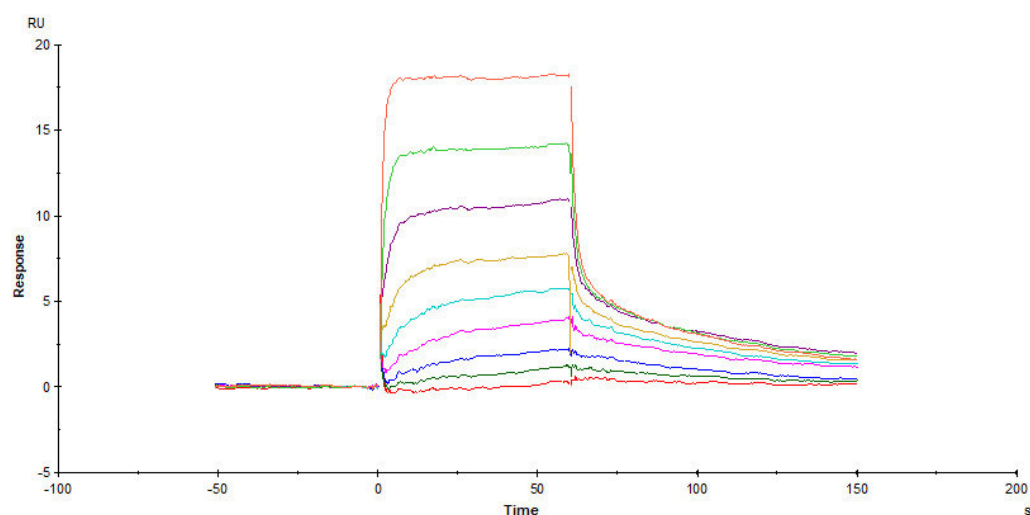
Immobilized Human CD3E&CD3G Heterodimer Protein, Fc,His Tag&Fc,Flag Tag (Cat. No. CDG-H52W9) at 2 µg/mL (100 µL/well) can bind UCHT1 with a linear range of 0.4-6 ng/mL (QC tested).

Human CD3E&CD3G Heterodimer Protein, Fc,His Tag&Fc,Flag Tag ELISA
0.1 µg of Human CD3E&CD3G Heterodimer Protein, Fc,His Tag&Fc,Flag Tag per well

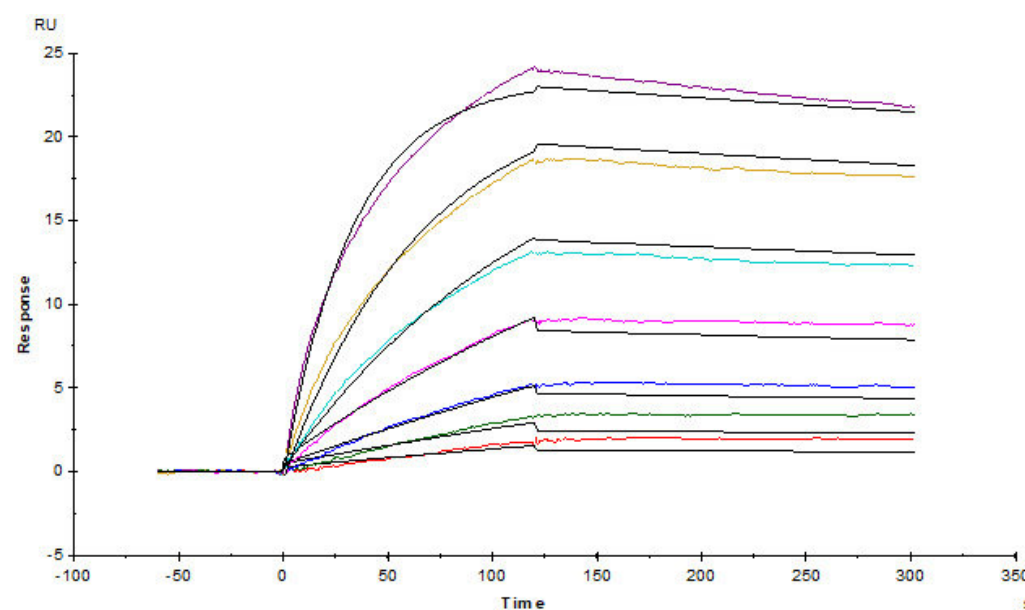


Immobilized Human CD3E&CD3G Heterodimer Protein, Fc,His Tag&Fc,Flag Tag (Cat. No. CDG-H52W9) at 1 µg/mL (100 µL/well) can bind Monoclonal Anti-Human CD3 Antibody, Mouse IgG2a (Clone: OKT3), premium grade (Cat. No. CDE-M120a) with a linear range of 0.4-13 ng/mL (Routinely tested).

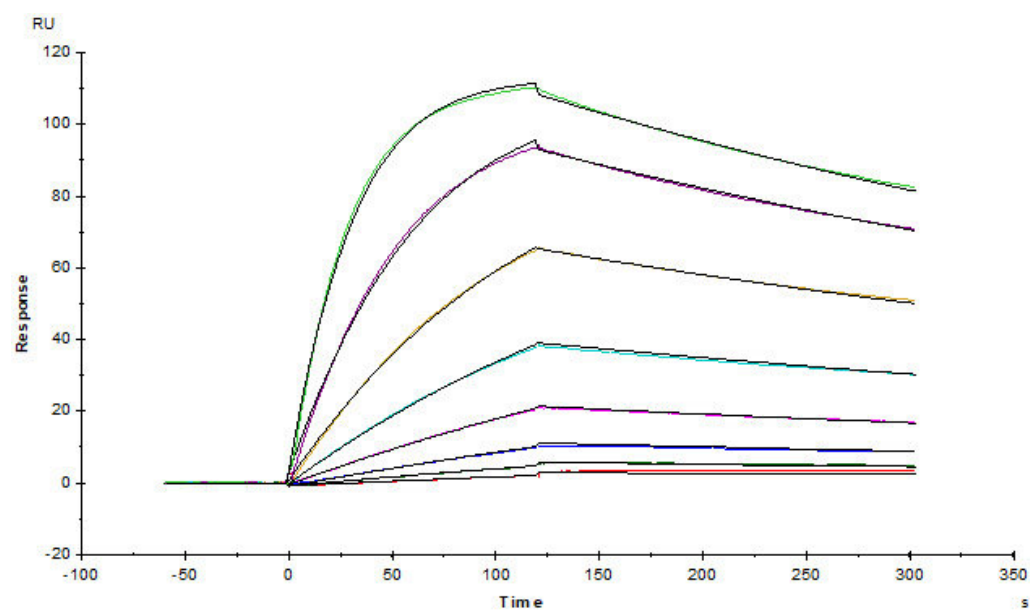
Bioactivity-SPR



Human CD3 epsilon&CD3 gamma Heterodimer Protein, Fc,His Tag&Fc,Flag Tag (Cat. No. CDG-H52W9) captured on CM5 chip via Anti-human IgG Fc antibodies surface can bind Monoclonal Anti-Human CD3 Antibody, Mouse IgG2a (Clone: OKT3), premium grade (Cat. No. CDE-M120a) with an affinity constant of 39.6 nM as determined in a SPR assay (Biacore T200) (Routinely tested).



Human CD3 epsilon&CD3 gamma Heterodimer Protein, Fc,His Tag&Fc,Flag Tag (Cat. No. CDG-H52W9) captured on CM5 chip via Anti-human IgG Fc antibodies surface can bind Anti-Human CD3 antibody (UCHT1) with an affinity constant of 1.59 nM as determined in a SPR assay (Biacore T200) (Routinely tested).



Human CD3 epsilon&CD3 gamma Heterodimer Protein, Fc,His Tag&Fc,Flag Tag (Cat. No. CDG-H52W9) captured on CM5 chip via Anti-human IgG Fc

Catalog # CDG-H52W9

antibodies surface can bind Bispecific T-cell Engager (CD3 X BCMA) with an affinity constant of 1.13 nM as determined in a SPR assay (Biacore T200) (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.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.