Human CD3 epsilon & CD3 delta Heterodimer Protein, His Tag&Tag Free (MALS verified)

Catalog # CDD-H52W1

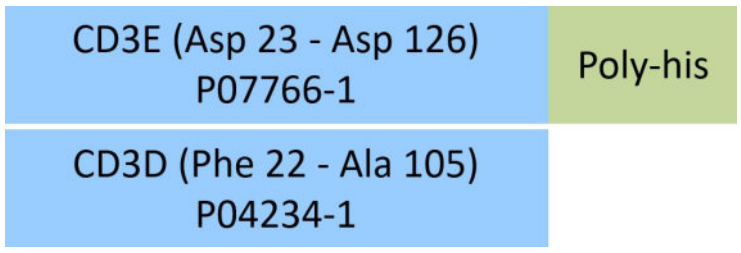
Synonym

CD3E & CD3D,CD3 delta & CD3 epsilon

Source

Human CD3E&CD3D Heterodimer Protein, His Tag&Tag Free(CDD-H52W1) is expressed from human 293 cells (HEK293). It contains AA Asp 23 - Asp 126 (CD3E) & Phe 22 - Ala 105 (CD3D) (Accession # P07766-1 (CD3E) & P04234-1 (CD3D)).
Predicted N-terminus: Asp 23 (CD3E) & Phe 22 (CD3D)

Molecular Characterization



Human CD3E&CD3D Heterodimer Protein, His Tag&Tag Free is produced by co-expression of CD3E and CD3D, has a calculated MW of 16.6 kDa (CD3E) and 13.4 kDa (CD3D). Subunit CD3E is fused with a polyhistidine tag at the C-terminus and subunit CD3D contains no tag. The reducing (R) heterodimer protein migrates as 25-30 kDa and 20 kDa and 22 kDa when calibrated against Star Ribbon Pre-stained Protein Marker due to glycosylation.

Purity

>90% as determined by SDS-PAGE.

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

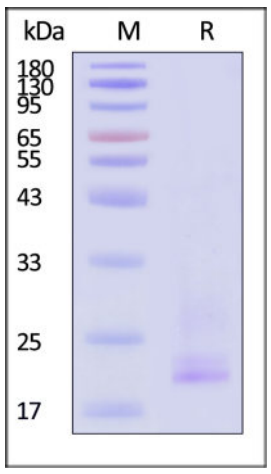
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

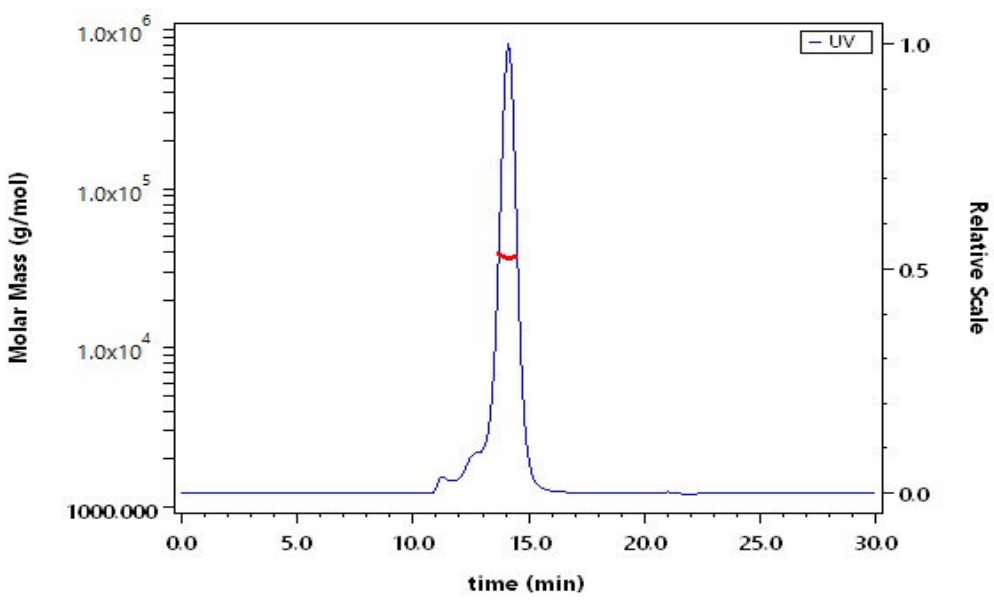
- -20°C to -70°C for 24 months in lyophilized state;
- -70°C for 12 months under sterile conditions after reconstitution.

SDS-PAGE



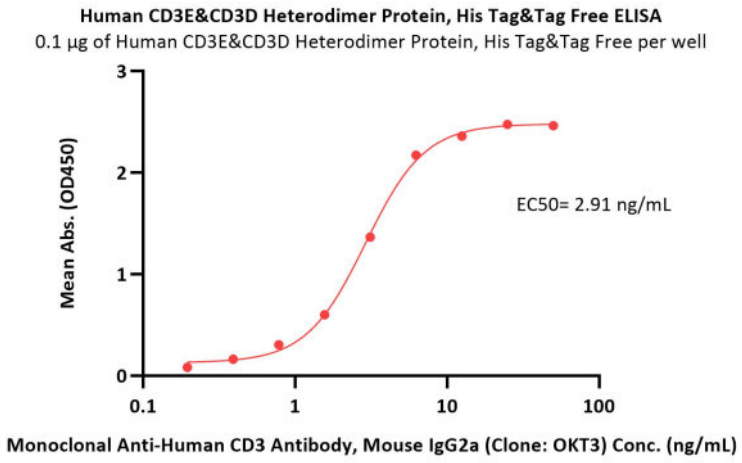
Human CD3E&CD3D Heterodimer Protein, His Tag&Tag Free on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

SEC-MALS

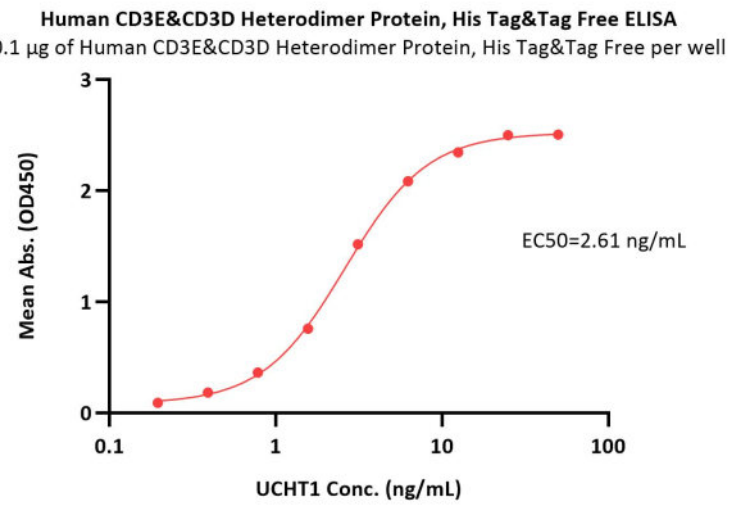


The purity of Human CD3E&CD3D Heterodimer Protein, His Tag&Tag Free (Cat. No. CDD-H52W1) is more than 85% and the molecular weight of this protein is around 35-43 kDa verified by SEC-MALS.
Report

Bioactivity-ELISA

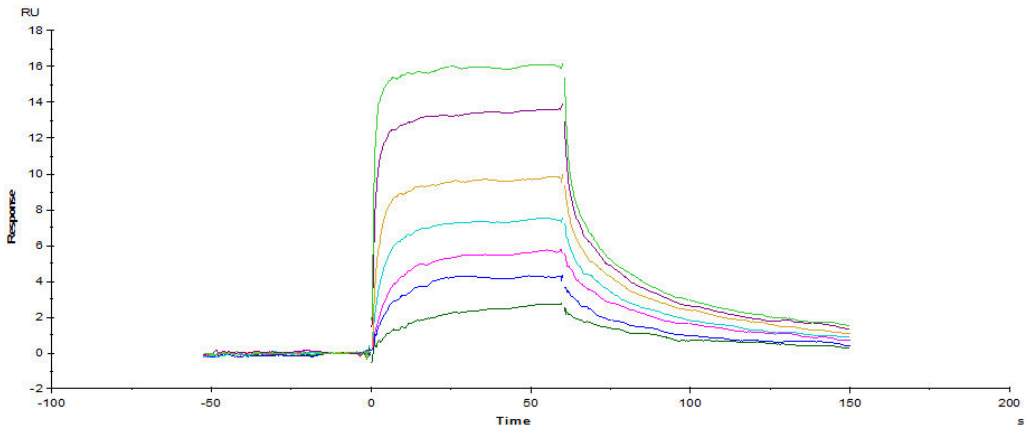


Immobilized Human CD3E&CD3D Heterodimer Protein, His Tag&Tag Free (Cat. No. CDD-H52W1) at 1 μg/mL (100 μL/well) can bind Monoclonal Anti-Human CD3 Antibody, Mouse IgG2a (Clone: OKT3) (Cat. No. CDE-M120a) with a linear range of 0.2-6 ng/mL (QC tested).

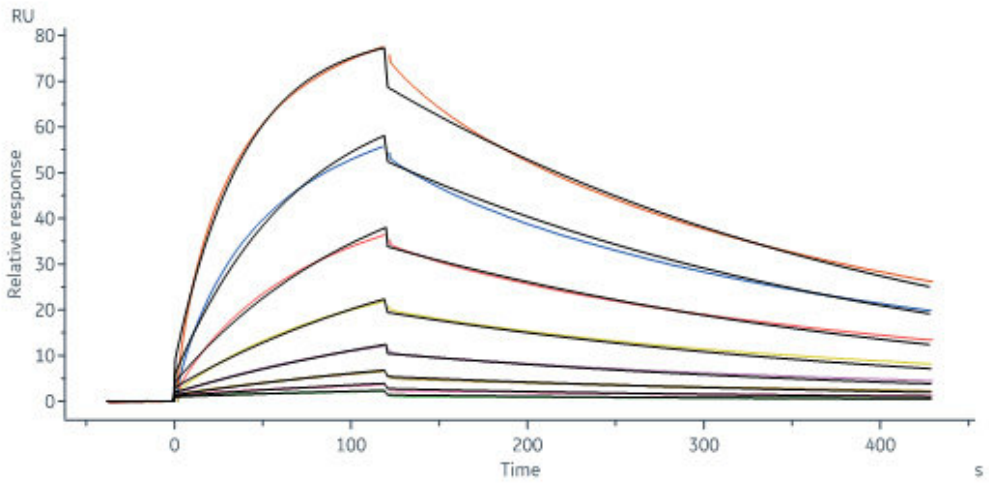


Immobilized Human CD3E&CD3D Heterodimer Protein, His Tag&Tag Free (Cat. No. CDD-H52W1) at 1 μg/mL (100 μL/well) can bind UCHT1 with a linear range of 0.2-6 ng/mL (Routinely tested).

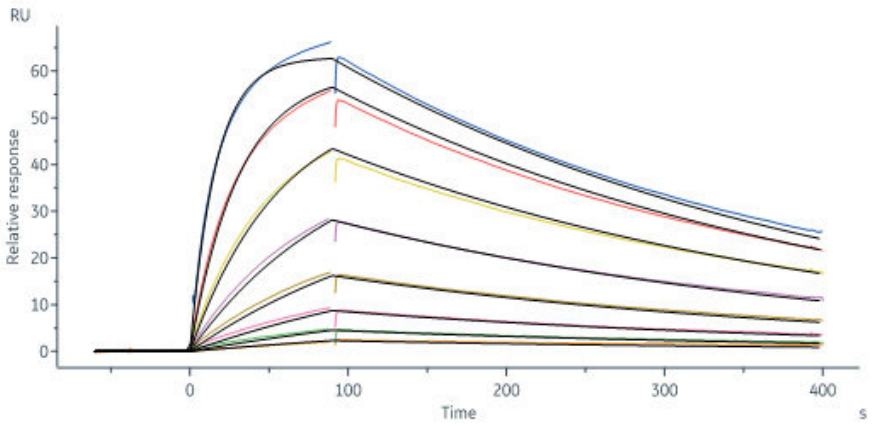
Bioactivity-SPR



Human CD3E&CD3D Heterodimer Protein, His Tag&Tag Free (Cat. No. CDD-H52W1) captured on CM5 Chip via anti-His antibody can bind Monoclonal Anti-Human CD3 Antibody, Mouse IgG2a (Clone: OKT3) (Cat. No. CDE-M120a) with an affinity constant of 40 nM as determined in SPR assay (Biacore T200) (Routinely tested).



Bispecific T-cell Engager (CD3 X BCMA) immobilized on CM5 Chip can bind Human CD3E&CD3D Heterodimer Protein, His Tag&Tag Free (Cat. No. CDD-H52W1) with an affinity constant of 37 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).



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&CD3D Heterodimer Protein, His Tag&Tag Free (Cat. No. CDD-H52W1) with an affinity constant of 10.7 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

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.