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

Catalog # CDD-H52Wa

Synonym

CD3E & CD3D,CD3 delta & CD3 epsilon

Source

Human CD3E&CD3D Heterodimer Protein(CDD-H52Wa) 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

CD3E (Asp 23 - Asp 126) P07766-1	Fc(Pro 100 - Lys 330) P01857	Poly-his
CD3D (Phe 22 - Ala 105) P04234-1	Fc(Pro 100 - Lys 330) P01857	Flag

Human CD3E&CD3D Heterodimer Protein is produced by co-expression of CD3E and CD3D, has a calculated MW of 40.2 kDa (CD3E) and 37.3 kDa (CD3D). Subunit CD3E is fused with a human IgG1 Fc tag and a polyhistidine tag at the C-terminus and subunit CD3D is fused with a human IgG1 Fc tag and a flag tag at the C-terminus. As a result of glycosylation, the heterodimer protein migrates as 45-60 kDa under reducing (R) condition, and 100-116 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.

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

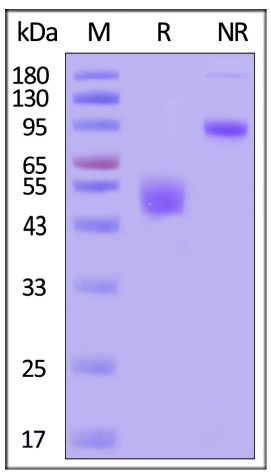
After reconstitution, this product is stable after storage at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

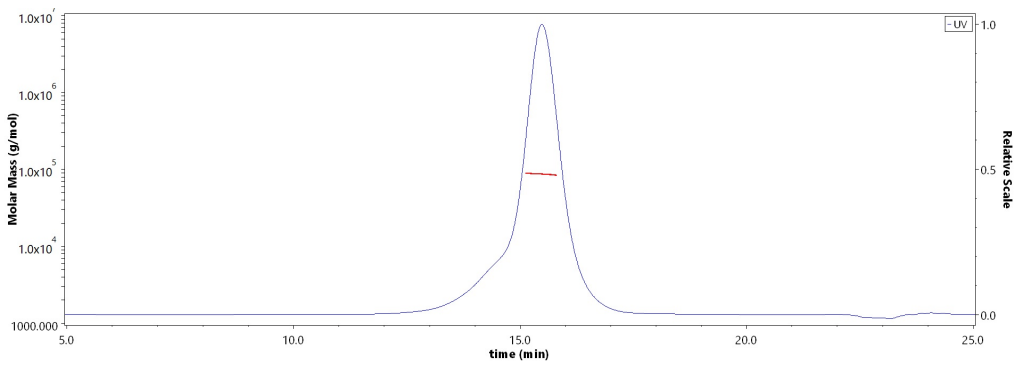
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



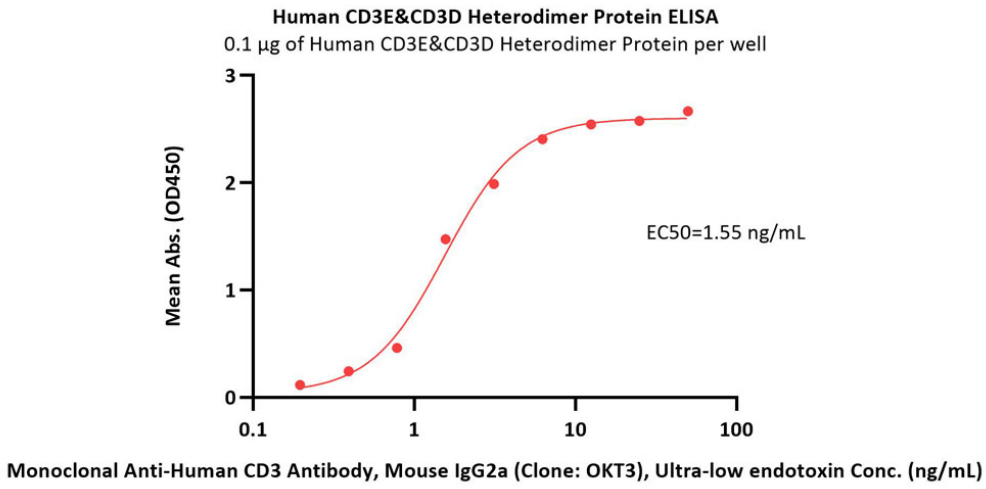
Human CD3E&CD3D Heterodimer Protein on SDS-PAGE under reducing (R) and non-reducing (NR) conditions. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With Star Ribbon Pre-stained Protein Marker).

SEC-MALS

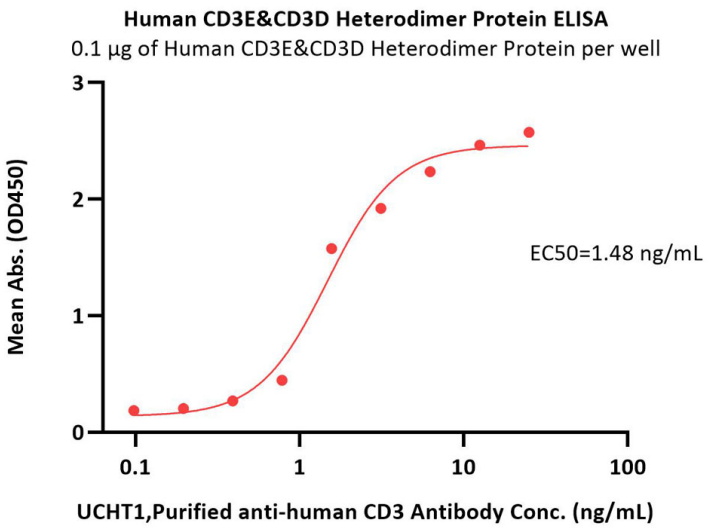


The purity of Human CD3E&CD3D Heterodimer Protein (Cat. No. CDD-H52Wa) is more than 85% and the molecular weight of this protein is around 80-90 kDa verified by SEC-MALS.
Report

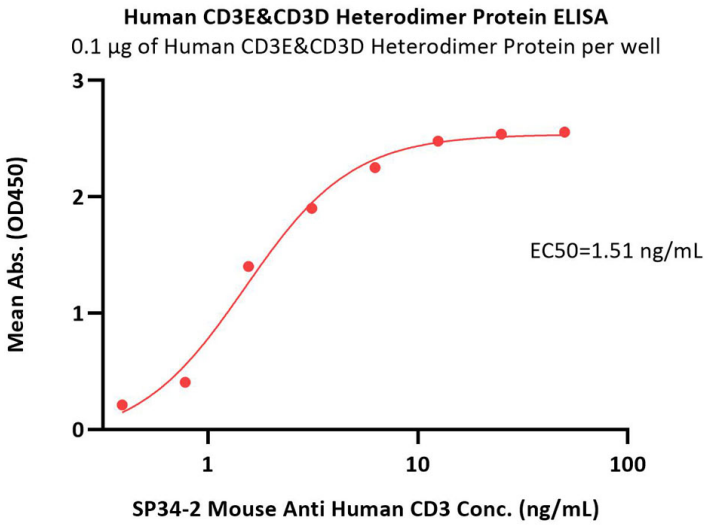
Bioactivity-ELISA



Immobilized Human CD3E&CD3D Heterodimer Protein (Cat. No. CDD-H52Wa) 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 0.2-3 ng/mL (QC tested).



Immobilized Human CD3E&CD3D Heterodimer Protein (Cat. No. CDD-H52Wa) at 1 μg/mL (100 μL/well) can bind UCHT1 with a linear range of 0.1-3 ng/mL (Routinely tested).



Immobilized Human CD3E&CD3D Heterodimer Protein (Cat. No. CDD-H52Wa) at 1 μg/mL (100 μL/well) can bind SP34-2 with a linear range of 0.4-3 ng/mL (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.