

Recombinant Human CD3E&CD3D Protein

Catalog No.: RP02963 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
Human	916&915	P07766(CD3E)&P04234(CD3D)

Tags

C-His

Synonyms

CD3; CD3e; CD3E; CD3d; T3D; CD3D; CD3E&CD3D; CD3 delta&CD3 epsilon

Product Information

Source	Purification
HEK293 cells	> 95% as determined by HPLC

Endotoxin

<1EU/μg

Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

Reconstitution

Centrifuge the tube before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

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Background

T-cell surface glycoprotein CD3 epsilon & CD3 delta chain, also known as CD3E & CD3D, are single-pass type I membrane proteins. When antigen presenting cells (APCs) activate T-cell receptor (TCR), TCR-mediated signals are transmitted across the cell membrane by the CD3 chains CD3D, CD3E, CD3G and CD3Z. All CD3 chains contain immunoreceptor tyrosine-based activation motifs (ITAMs) in their cytoplasmic domain.

Basic Information

Description

Recombinant Human CD3E&CD3D Heterodimer Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Asp23-Glu120 (CD3E)&Phe22-Ala105 (CD3D)) of human CD3E&CD3D Heterodimer (Accession #P07766(CD3E)&P04234(CD3D)) fused with a 6×His tag at the C-terminus.

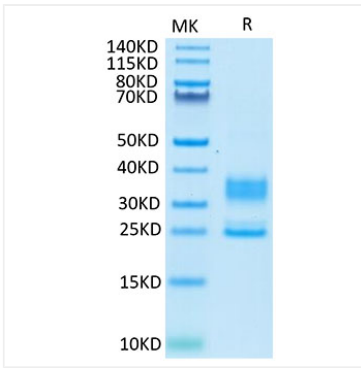
Bio-Activity

1. Immobilized Human CD3E&CD3D at 2μg/ml (100μl/Well) on the plate. Dose response curve for OKT3, mFc Tag with the EC₅₀ of 38ng/ml determined by ELISA. 2. Immobilized Human CD3E&CD3D at 2μg/ml (100μl/Well). Dose response curve for Foralumab, hFc Tag with the EC₅₀ of 18.5ng/ml determined by ELISA.

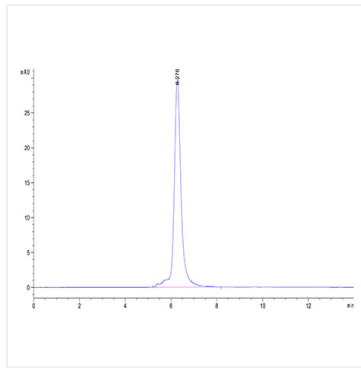
Storage

Store the lyophilized protein at -20°C to -80°C for 12 months. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

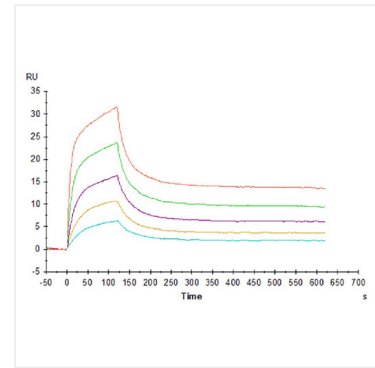
Validation Data



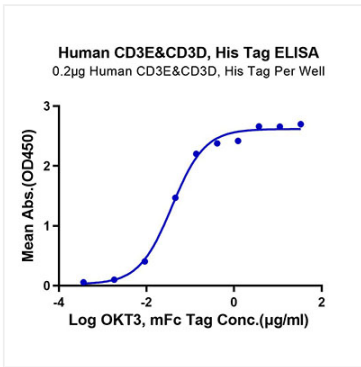
Human CD3E&CD3D on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.



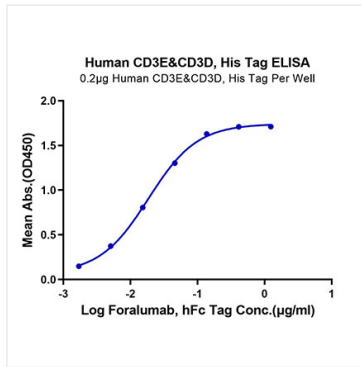
The purity of Human CD3E&CD3D was greater than 95% as determined by SEC-HPLC.



Human CD3E&CD3D, His Tag captured on CM5 Chip via Anti-His Antibody can bind OKT3, mFc Tag with an affinity constant of 0.36nM as determined in SPR assay (Biacore T200).



Immobilized Human CD3E&CD3D at 2µg/ml (100µl/Well) on the plate. Dose response curve for OKT3, mFc Tag with the EC₅₀ of 38ng/ml determined by ELISA.



Immobilized Human CD3E&CD3D at 2µg/mL (100µl/Well). Dose response curve for Foralumab, hFc Tag with the EC₅₀ of 18.5ng/ml determined by ELISA.