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Recombinant Human CD3E&CD3D Protein

Catalog No.: RP00623 Recombinant

Sequence Information

 Species
 Gene ID
 Swiss Prot

 Human
 916&915
 P07766(CD3

 E)&P04234(CD3D)
 D3D)

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 SDS-PAGE;≥ 95 % as determined by

HPLC.

Calculated MW Observed MW

17.9 kDa (CD3E), 28-38 kDa (CD3E), 16.7 kDa (CD3D) 25 kDa(CD3D)

Endotoxin

< 1 EU/µg of the protein by LAL method.

Formulation

Lyophilized from 0.22 µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.

Reconstitution

Centrifuge the vial 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 stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Contact

400-999-6126

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/CD3 epsilon&CD3 delta 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/CD3 epsilon&CD3 delta (Accession #P07766(CD3E)&P04234(CD3D)) fused with a C-His tag at the C-terminus.

Bio-Activity

Shipping

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Storage

Store at -20° C. Store the lyophilized protein at -20° C to -80° C up to 1 year from the date of receipt.

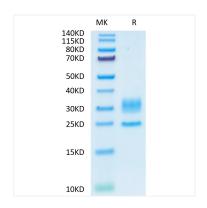
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

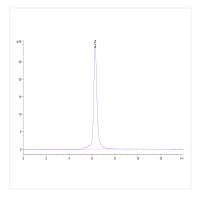
Operational Notes

For your safety and health, please wear a lab coat and disposable gloves for handling.

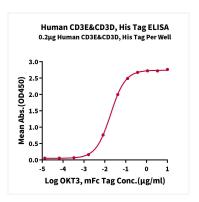
Validation Data



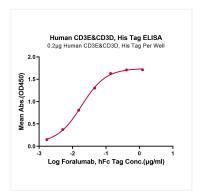
Recombinant Human CD3E&CD3D Protein was determined by Tris-Bis PAGE under reducing conditions.



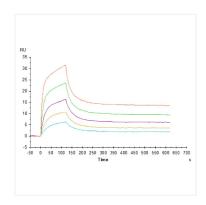
The purity of Human CD3E&CD3D was greater than 95% as determined by SEC-HPLC.



Immobilized Human CD3E&CD3D at 2 μ g/mL (100 μ L/Well) on the plate. Dose response curve for OKT3, mFc Tag with the EC $_{50}$ of 18.9ng/mL determined by ELISA (QC Test).



Immobilized Human CD3E&CD3D at 2ug/mL (100 μ L/Well). Dose response curve for Foralumab, hFc Tag with the EC $_{50}$ of 18.5ng/mL determined by ELISA.



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).