

# Recombinant Human CD3E&CD3G Protein

Catalog No.: RP00415 **Recombinant**

## Sequence Information

| Species | Gene ID | Swiss Prot                |
|---------|---------|---------------------------|
| Human   | 916&917 | P07766(CD3E)&P09693(CD3G) |

### Tags

C-His

### Synonyms

CD3; CD3G; CD3g; T3G; CD3e; CD3E; CD3 epsilon&CD3 gamma; CD3E&CD3G

## 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), 25-40 kDa  
17.9 kDa (CD3G)

### 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 stabilizer (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 gamma chain, also known as CD3E & CD3G, 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&CD3G/CD3 epsilon&CD3 gamma Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Asp23-Glu120(CD3E) & Gln23-Asn106(CD3G)) of Human CD3E&CD3G/CD3 epsilon&CD3 gamma (Accession #P07766(CD3E)&P09693(CD3G)) 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.

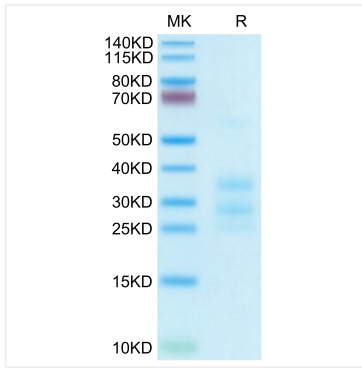
Avoid repeated freeze/thaw cycles.

### Operational Notes

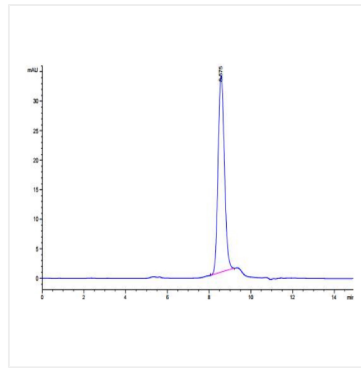
For your safety and health, please wear a lab coat and disposable gloves for handling.



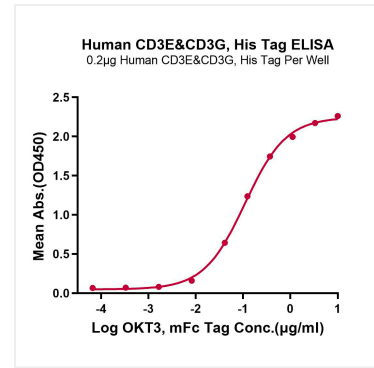
## Validation Data



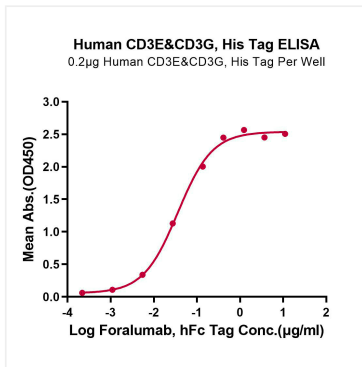
Recombinant Human CD3E&CD3G Protein was determined by Tris-Bis PAGE under reducing conditions.



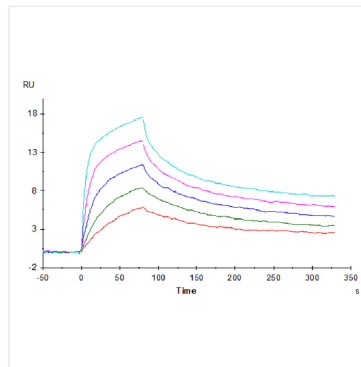
The purity of Human CD3E&CD3G is greater than 95% as determined by SEC-HPLC.



Immobilized Human CD3E&CD3G, His Tag at 2 µg/mL (100 µL/Well) on the plate. Dose response curve for OKT3, mFc Tag with the EC<sub>50</sub> of 110.2ng/mL determined by ELISA (QC Test).



Immobilized Human CD3E&CD3G, His Tag at 2 µg/mL (100 µL/Well) on the plate. Dose response curve for Foralumab, hFc Tag with the EC<sub>50</sub> of 36.2ng/mL determined by ELISA.



Human CD3E&CD3G, His Tag captured on CM5 Chip via Anti-His Antibody can bind OKT3, mFc Tag with an affinity constant of 0.22nM as determined in SPR assay (Biacore T200).