

# Human CD3E&CD3G/CD3 epsilon&CD3 gamma Protein

Cat. No. CD3-HM157

## Description

<b>Source</b>	Recombinant Human CD3E&CD3G/CD3 epsilon&CD3 gamma Protein is expressed from Expi293 with His tag at the C-terminal. It contains Asp23-Glu120(CD3E)&Gln23-Gln106(CD3G).
<b>Accession</b>	P07766(CD3E)&P09693(CD3G)
<b>Molecular Weight</b>	The protein has a predicted MW of 17.9 kDa (CD3E) and 17.9 kDa (CD3G). Due to glycosylation, the protein migrates to 25-40 kDa based on Tris-Bis PAGE result.
<b>Endotoxin</b>	Less than 1EU per µg by the LAL method.
<b>Purity</b>	> 95% as determined by Tris-Bis PAGE > 95% as determined by HPLC

## Formulation and Storage

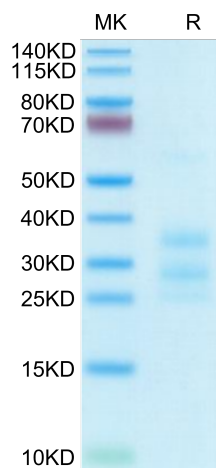
<b>Formulation</b>	Lyophilized from 0.22µm filtered solution in PBS (pH 7.4). Normally 5% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Centrifuge tubes before opening. Reconstituting to a concentration more than 100 µg/ml is recommended (usually we use 1mg/ml solution for lyophilization). Dissolve the lyophilized protein in distilled water.
<b>Storage</b>	-20 to -80°C for 12 months as supplied from date of receipt. -20 to -80°C for 3-6 months in unopened state after reconstitution. 2-8°C for 2-7 days after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please avoid freeze-thaw cycles.

## 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.

## Assay Data

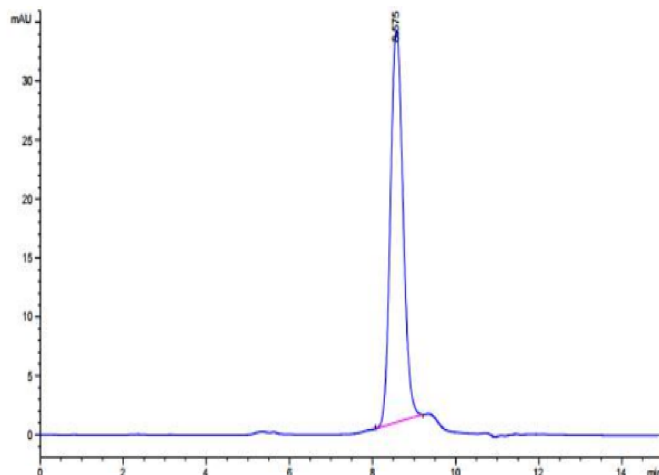
### Tris-Bis PAGE



Human CD3E&CD3G on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.

### SEC-HPLC

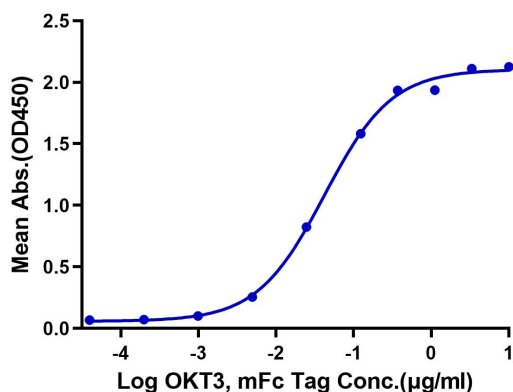
Assay Data



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

ELISA Data

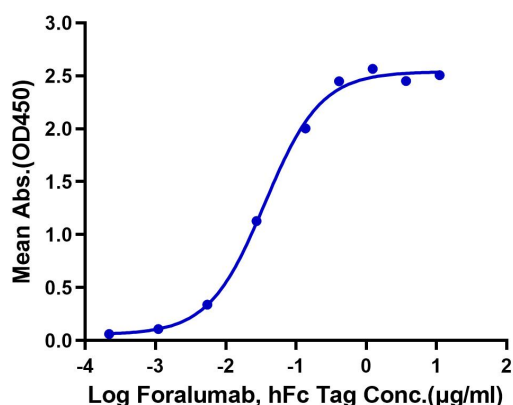
**Human CD3E&CD3G, His Tag ELISA**  
0.2µg Human CD3E&CD3G, His Tag Per Well



Immobilized Human CD3E&CD3G, His Tag at 2µg/ml (100µl/Well) on the plate. Dose response curve for OKT3, mFc Tag with the EC50 of 42.0ng/ml determined by ELISA.

ELISA Data

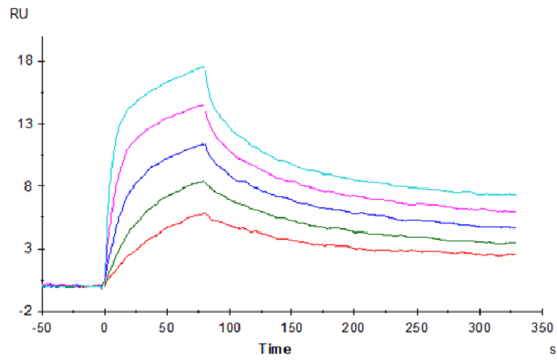
**Human CD3E&CD3G, His Tag ELISA**  
0.2µg Human CD3E&CD3G, His Tag Per Well



Immobilized Human CD3E&CD3G, His Tag at 2µg/ml (100µl/Well) on the plate. Dose response curve for Foralumab, hFc Tag with the EC50 of 36.2ng/ml determined by ELISA.

SPR Data

Assay Data



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).