

Rev04  
 Update: Aug,08,2025

**DATASHEET**

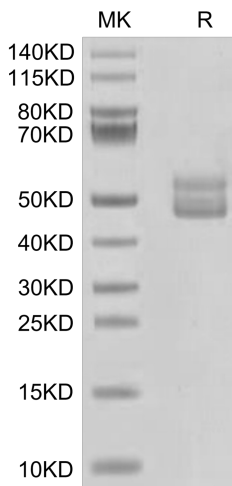
# CD3E&CD3G hFc Chimera, Human

Cat. No.: Z03989

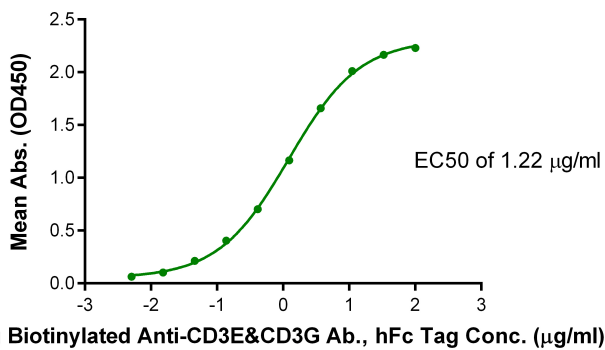
## Product Introduction

|                                     |   |
|-------------------------------------|---|
| <b>Species</b>                      | Human   |
| <b>Protein Construction</b>         | <div style="display: flex; align-items: center; justify-content: space-between;"> <div style="background-color: #0056b3; color: white; padding: 5px; text-align: center;"> <b>CD3E &amp; CD3G [Asp23-Asp126 (CD3E) &amp; Gln23-Ser116 (CD3G)]</b><br/>           Accession # P07766 (CD3E) &amp; P09693 (CD3G)         </div> <div style="background-color: #76b82a; color: white; padding: 5px; text-align: center;">hFc</div> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span>N-term</span> <span>C-term</span> </div> |
| <b>Purity</b>                       | > 95% as determined by Bis-Tris PAGE<br>> 95% as determined by HPLC   |
| <b>Endotoxin Level</b>              | Less than 1EU per µg by the LAL method.   |
| <b>Biological Activity</b>          | Measured by its binding ability in a functional ELISA. Immobilized CD3E&CD3G hFc Chimera, Human at 1µg/ml (100µl/well) on the plate can bind Anti-CD3E&CD3G Ab.2, mFc Tag. Test result was comparable to standard batch.  |
| <b>Expression System</b>            | HEK293  |
| <b>Theoretical Molecular Weight</b> | 37.8 kDa (CD3E) and 36.5 kDa (CD3G)   |
| <b>Apparent Molecular Weight</b>    | Due to glycosylation, the protein migrates to 40-60 kDa based on Bis-Tris PAGE result.  |
| <b>Formulation</b>                  | Lyophilized from a 0.22 µm filtered solution in PBS, (pH 7.4).  |
| <b>Reconstitution</b>               | Centrifuge the tube before opening. Reconstituting to a concentration more than 100 µg/ml is recommended. Dissolve the lyophilized protein in distilled water.  |
| <b>Storage &amp; Stability</b>      | Upon receiving, the product remains stable up to 6 months at -20 °C or below. Upon reconstitution, the product should be stable for 3 months at -80 °C. Avoid repeated freeze-thaw cycles.  |

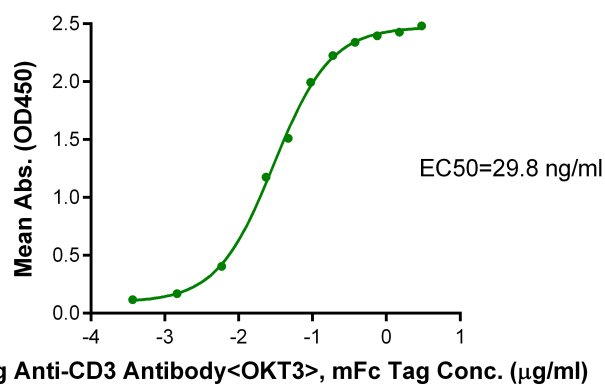
## Examples



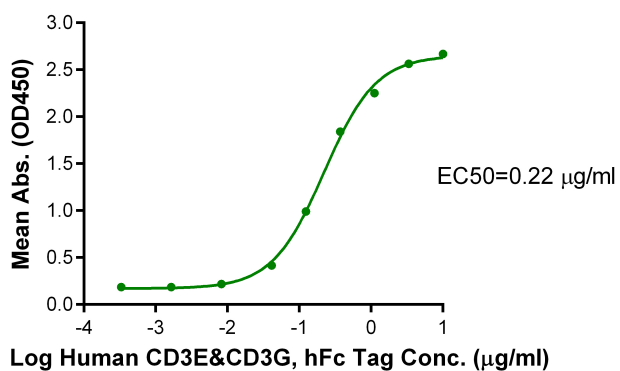
CD3E&CD3G hFc Chimera, Human on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.



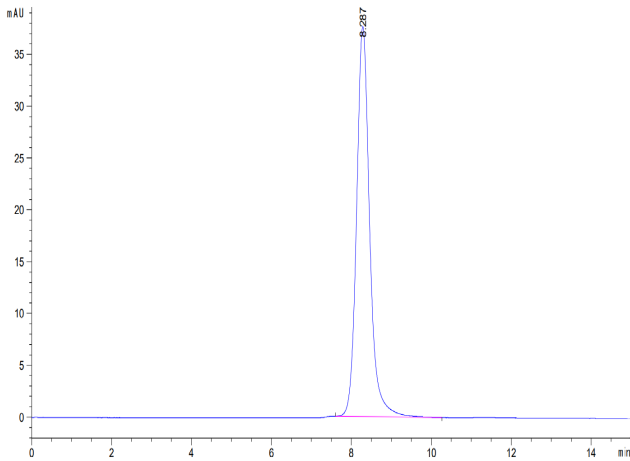
Immobilized CD3E&CD3G hFc Chimera, Human at 0.5 µg/ml (100 µl/Well). Dose response curve for Biotinylated Anti-CD3E&CD3G Ab. with the EC50 of 1.22 µg/ml determined by ELISA.



Immobilized CD3E&CD3G hFc Chimera, Human, hFc Tag at 2 µg/ml (100 µl/well) on the plate. Dose response curve for Anti-CD3 Antibody, mFc Tag with the EC50 of 29.8 ng/ml determined by ELISA.



Immobilized Tebentafusp, His Tag at 1 µg/ml (100 µl/well) on the plate. Dose response curve for CD3E&CD3G hFc Chimera, Human, hFc Tag with the EC50 of 0.22 µg/ml determined by ELISA.



The purity of CD3E&CD3G hFc Chimera, Human was greater than 95% as determined by SEC-HPLC.

## Background

**Target 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.

**Synonyms :** CD3; CD3G; CD3g; CD3e; CD3E; CD3 epsilon&CD3 gamma; CD3E&CD3G

**For research use only. Not intended for human or animal clinical trials, therapeutic or diagnostic use.**

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