

Rev04
 Update: Aug,08,2025
DATASHEET

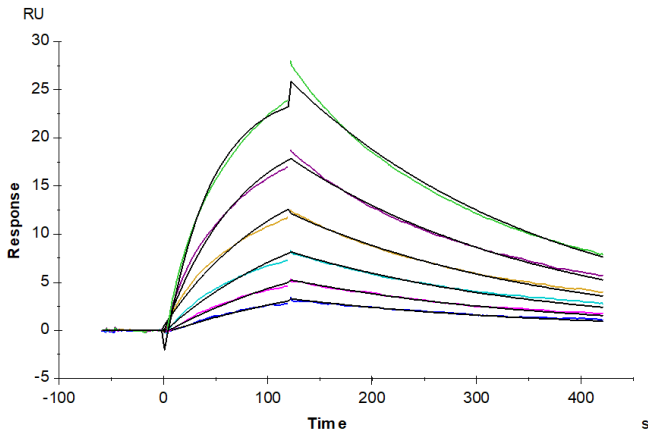
CD3E&CD3D hFc Chimera [Biotin], Avi, Human

Cat. No.: Z03995

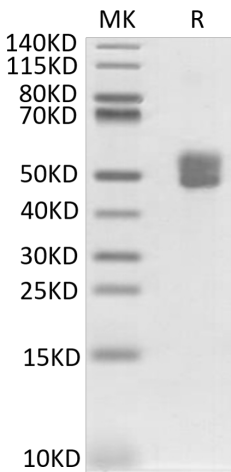
Product Introduction

Species	Human
Protein Construction	<div style="display: flex; align-items: center; justify-content: space-between;"> <div style="background-color: #0056b3; color: white; padding: 5px; text-align: center;"> CD3E & CD3D [Asp23-Asp126 (CD3E) & Phe22-Ala105 (CD3D)] Accession # P07766 (CD3E) & P04234 (CD3D) </div> <div style="background-color: #90c17e; padding: 5px; text-align: center;">hFc</div> <div style="background-color: #4f81bd; padding: 5px; text-align: center;">Avi</div> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> N-term C-term </div>
Conjugate	Biotin
Purity	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC
Endotoxin Level	Less than 1EU per µg by the LAL method.
Biological Activity	Measured by its binding ability in a functional ELISA. Immobilized CD3E&CD3D hFc Chimera [Biotin], Avi, Human at 1µg/ml (100µl/well) on streptavidin (5µg/ml) precoated plate can bind OKT3, mFc Tag. Test result was comparable to standard batch.
Expression System	HEK293
Theoretical Molecular Weight	40 kDa (CD3E) and 35.4 kDa (CD3D)
Apparent Molecular Weight	Due to glycosylation, the protein migrates to 48-60 kDa based on Bis-Tris PAGE result.
Formulation	Lyophilized from a 0.22 µm filtered solution in PBS, (pH 7.4).
Reconstitution	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 µg/ml is recommended. Dissolve the lyophilized protein in distilled water.
Storage & Stability	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.

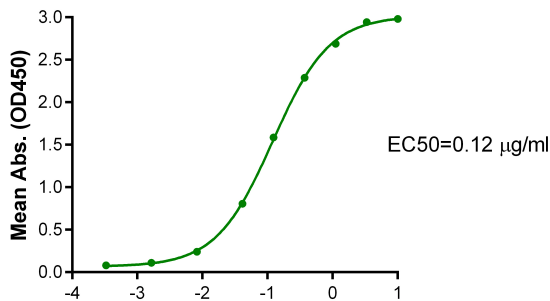
Examples



Anti-CD3 Antibody, hFc Tag immobilized on CM5 Chip can bind CD3E&CD3D hFc Chimera [Biotin], Avi, Human, hFc-Avi Tag with an affinity constant of 0.17 μ M as determined in SPR assay (Biacore T200).

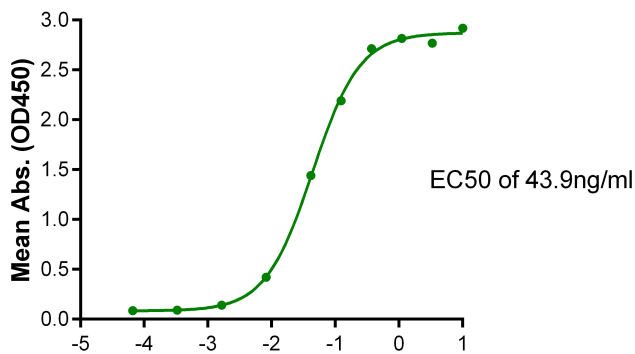


CD3E&CD3D hFc Chimera [Biotin], Avi, Human on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.



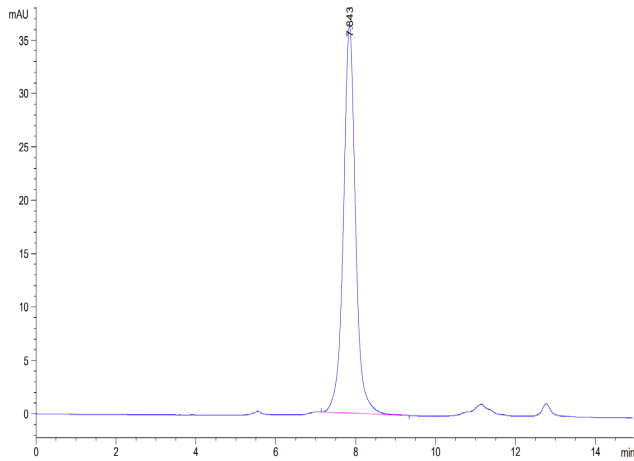
Immobilized Anti-CD3 Antibody, hFc Tag at 5 μ g/ml (100 μ l/well) on the plate. Dose response curve for CD3E&CD3D hFc Chimera [Biotin], Avi, Human, hFc Avi Tag with the EC50 of 0.12 μ g/ml determined by ELISA.

Log Biotinylated Human CD3E&CD3D, hFc Avi Tag Conc. (μ g/ml)



Immobilized CD3E&CD3D hFc Chimera [Biotin], Avi, Human, hFc Tag at 1 μ g/ml (100 μ l/well) on the streptavidin precoated plate (5 μ g/ml). Dose response curve for Anti-CD3 Antibody, mFc Tag with the EC50 of 43.9 ng/ml determined by ELISA.

Log Anti-CD3 Antibody, mFc Tag Conc. (μ g/ml)



The purity of CD3E&CD3D hFc Chimera [Biotin], Avi, Human was greater than 95% as determined by SEC-HPLC.

Background

Target 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.

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

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