Alexa Fluor™ 488-Labeled Human CD3 epsilon & CD3 delta Heterodimer Protein, His Tag&Tag FreeStar Staining

Catalog # CDD-HA2W5





Synonym

CD3E & CD3D,CD3 delta & CD3 epsilon

Source

Alexa Fluor 488-Labeled Human CD3E&CD3D Heterodimer Protein, His Tag&Tag Free (CDD-HA2W5) is produced via conjugation of AF488 to Human CD3E&CD3D Heterodimer Protein, His Tag&Tag Free with a new generation site-specific technology under Star Staining labeling platform. Human CD3E&CD3D Heterodimer Protein, His Tag&Tag Free is expressed from human 293 cells (HEK293). It contains AA Asp 23 - Asp 126 (CD3E) & Phe 22 - Ala 105 (CD3D) (Accession # P07766-1 (CD3E) & P04234-1 (CD3D)). Predicted N-terminus: Asp 23 & Phe 22

Molecular Characterization

Alexa Fluor 488-Labeled Human CD3E&CD3D Heterodimer Protein, His Tag&Tag Free, produced by co-expression of CD3E and CD3D. Subunit CD3E is fused with a polyhistidine tag at the C-terminus and subunit CD3D contains no tag.

Conjugate

AF488

Excitation Wavelength: 488 nm

Emission Wavelength: 517 nm

Protein Ratio

The AF488 to protein molar ratio is 0.9-1.

Purity

>90% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please protect from light and avoid repeated freeze-thaw cycles.

This product is stable after storage at:

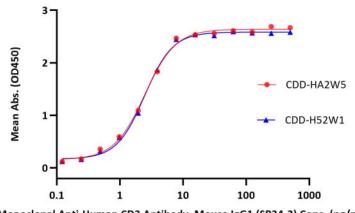
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

Star Staining fluorescent-labeled products are developed by a new-generation site-specific labeling technology with Star Standard quality at ACROBiosystems

- ★ Using new-generation site-specific labeling technology ★ High specificity and sensitivity verified by flow cytometry.
- to maintain natural bioactivity ★ No non-specific binding to non-transduced PBMCs.
- ★ High homogeneity and high batch-to-batch consistency

Bioactivity-ELISA

Alexa Fluor 488-Labeled Human CD3E&CD3D Heterodimer Protein, His Tag&Tag Free ELISA 0.1 µg of Alexa Fluor 488-Labeled Human CD3E&CD3D Heterodimer Protein, His Tag&Tag Free per well



Monoclonal Anti-Human CD3 Antibody, Mouse IgG1 (SP34-2) Conc. (ng/mL)



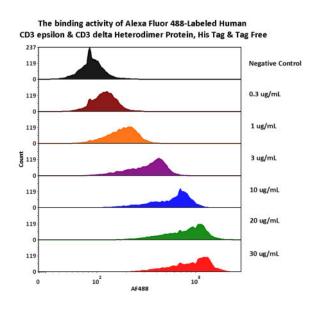
Alexa Fluor™ 488-Labeled Human CD3 epsilon & CD3 delta Heterodimer Protein, His Tag&Tag FreeStar Staining





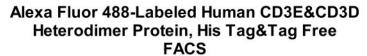
Immobilized Alexa Fluor 488-Labeled Human CD3E&CD3D Heterodimer Protein, His Tag&Tag Free (Cat. No. CDD-HA2W5) at 1 μg/mL (100 μL/well) can bind Monoclonal Anti-Human CD3 Antibody, Mouse IgG1 (SP34-2) (Cat. No. CDE-M531) with a linear range of 0.1-8 ng/mL (Routinely tested). Labeling with fluorescent dyes did not affect their activity.

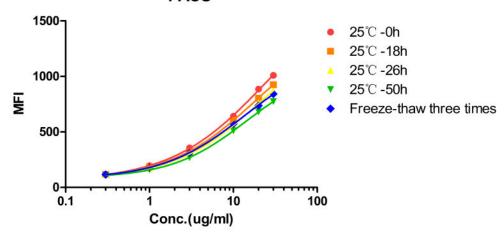
Bioactivity-FACS



1e5 of ActiveMax® Human T cell Activation/Expansion CD3/CD28 Beads, premium grade were stained with different concentration of Alexa Fluor 488-Labeled Human CD3E&CD3D Heterodimer Protein, His Tag&Tag Free (Cat. No. CDD-HA2W5) and negative control protein respectively, AF488 signal was used to evaluate the binding activity (QC tested).

Bioactivity-Stability





Alexa Fluor 488-Labeled Human CD3E&CD3D Heterodimer Protein, His Tag&Tag Free (Cat. No. CDD-HA2W5) is stable at 25°C for 50 hours, equivalent to store at -70 °C for 2 years and freezing and thawing 3 times without performance reduction.

Background

T-cell surface glycoprotein CD3 delta & CD3 epsilon chain, also known as CD3D & CD3E or CD3D&CD3E respectively, are single-pass type I membrane proteins. CD3D, together with CD3- epsilon(CD3E), CD3-gamma and CD3-zeta, and the T-cell receptor alpha/beta and gamma/delta heterodimers, forms the T cell receptor-



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CD3 complex. T cell receptor-CD3 complex plays an important role in coupling antigen recognition to several intracellular signal-transduction pathways.

