

Synonym

CD7,GP40,TP41,LEU-9,Tp40

Source

Alexa Fluor 488-Labeled Human CD7 Protein, His Tag (CD7-HA2H9) is produced via conjugation of AF488 to Human CD7 Protein, His Tag with a new generation site-specific technology under Star Staining labeling platform. Human CD7 Protein, His Tag is expressed from human 293 cells (HEK293). It contains AA Ala 26 - Pro 180 (Accession # P09564-1).

Predicted N-terminus: Ala 26

Molecular Characterization

CD7(Ala 26 - Pro 180) P09564-1

Poly-his

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 33.3 kDa.

Conjugate

AF488

Excitation Wavelength: 488 nm

Emission Wavelength: 517 nm

Protein Ratio

The AF488 to protein molar ratio is 0.9-1.

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:

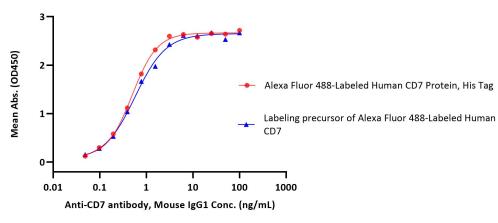
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

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 CD7 Protein, His Tag ELISA 0.1 µg of Alexa Fluor 488-Labeled Human CD7 Protein, His Tag per well

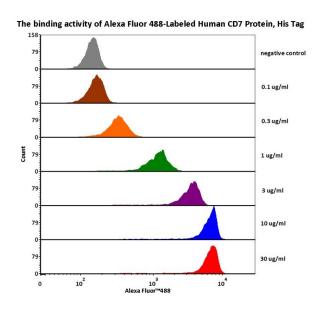


Immobilized Alexa Fluor 488-Labeled Human CD7 Protein, His Tag (Cat. No. CD7-HA2H9) at 1 µg/mL (100 µL/well) can bind Anti-CD7 antibody, Mouse IgG1 with a linear range of 0.05-2 ng/mL (Routinely tested). Labeling with fluorescent dyes did not affect their activity.





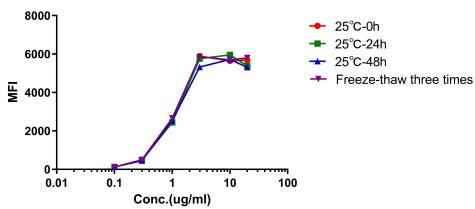
Bioactivity-FACS



1e5 of Mouse Anti-CD7 antibody coupled beads (5.5 μm) were stained with different concentration of Alexa Fluor 488-Labeled Human CD7 Protein, His Tag (Cat. No. CD7-HA2H9) and negative control protein respectively, AF488 signal was used to evaluate the binding activity (QC tested).

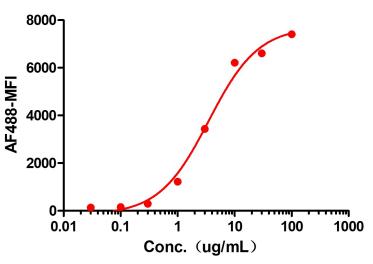
Bioactivity-Stability

Alexa Fluor 488-Labeled Human CD7 Protein, His Tag **FACS**



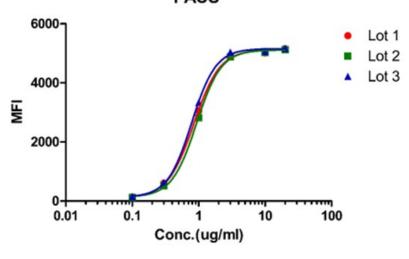
Alexa Fluor 488-Labeled Human CD7 Protein, His Tag (Cat. No. CD7-HA2H9) is stable at 25°C for 48 hours, equivalent to store at -70°C for 2 years and freezing and thawing 3 times without performance reduction.

Alexa Fluor 488-Labeled Human CD7 Protein, His Tag



1e5 of Mouse Anti-CD7 antibody coupled beads (5.5 μm) were stained with different concentration of Alexa Fluor 488-Labeled Human CD7 Protein, His Tag (Cat. No. CD7-HA2H9) and negative control protein respectively, AF488 signal was used to evaluate the binding activity (QC tested).

Alexa Fluor 488-Labeled Human CD7 Protein, His Tag **FACS**



Binding activity of three different lots of Alexa Fluor 488-Labeled Human CD7 Protein, His Tag against Anti-CD7 CAR-293 cells was evaluated by flow cytometry. The result shows very high batch-to-batch consistency.

Background

T-cell antigen CD7 (CD7) is also known as GP40, LEU-9, TP41 and Tp40. CD7 is a protein that in humans is encoded by the CD7 gene, this gene encodes a transmembrane protein which is a member of the immunoglobulin superfamily. CD7 has been shown to interact with PIK3R1. This protein is found on thymocytes and mature T cells. It plays an essential role in T-cell interactions and also in T-cell/B-cell interaction during early lymphoid development.