

FITC-Labeled Human CD38 Protein, Fc Tag

Catalog # CD8-HF255



Synonym

CD38,T10,cADPr hydrolase 1

Source

FITC-Labeled Human CD38, Fc Tag (Cat. No. CD8-HF255) is expressed from human HEK293 cells. It contains AA Val 43 - Ile 300 (Accession # [P28907-1](#)). It is the FITC labeled form of Human CD38 Protein, Fc Tag (Cat. No. CD8-H5255).
Predicted N-terminus: Val 43

Molecular Characterization

CD38(Val 43 - Ile 300) P28907-1	Fc(Pro 100 - Lys 330) P01857
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This protein carries a human IgG1 Fc tag at the C-terminus.
The protein has a calculated MW of 56.5 kDa. The protein migrates as 65-75 under reducing (R) condition (SDS-PAGE) due to glycosylation.

Conjugate

FITC
Excitation source: 488 nm spectral line, argon-ion laser
Excitation Wavelength: 488 nm
Emission Wavelength: 535 nm

Labeling

The primary amines in the side chains of lysine residues and the N-terminus of the protein are conjugated with FITC using standard chemical labeling method. The residual FITC is removed by molecular sieve treatment during purification process.

Protein Ratio

The FITC to protein molar ratio is 3-5.

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.

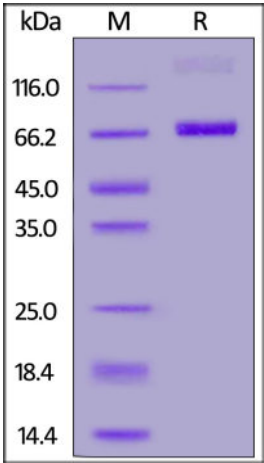
Storage

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.

SDS-PAGE



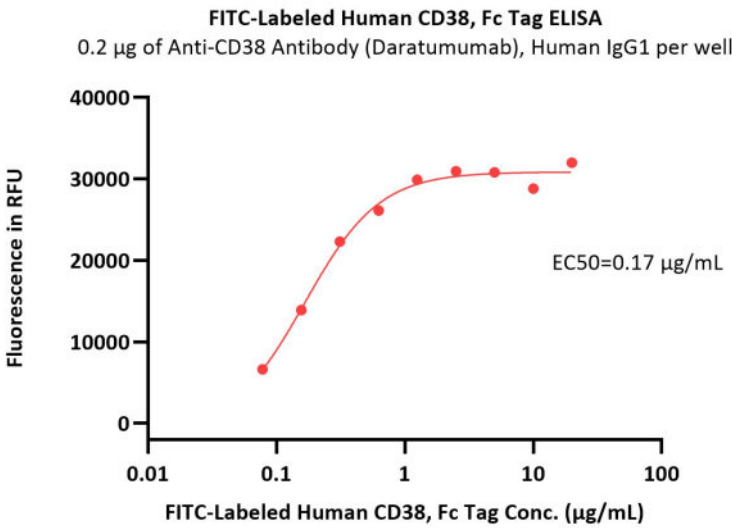
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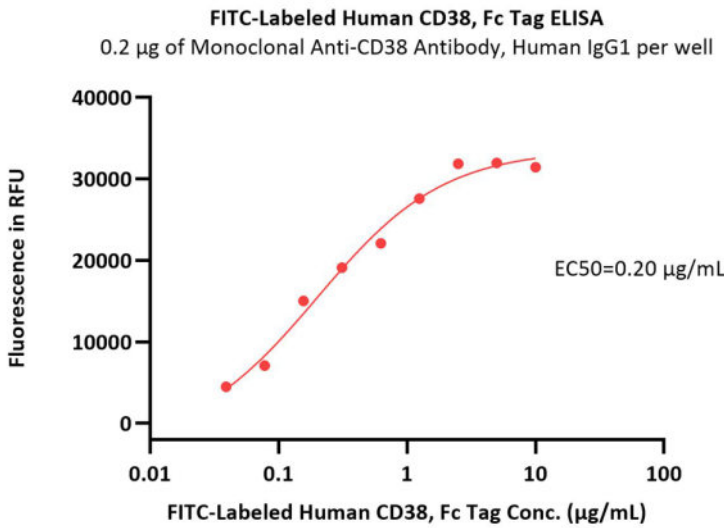


FITC-Labeled Human CD38, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

Bioactivity-ELISA

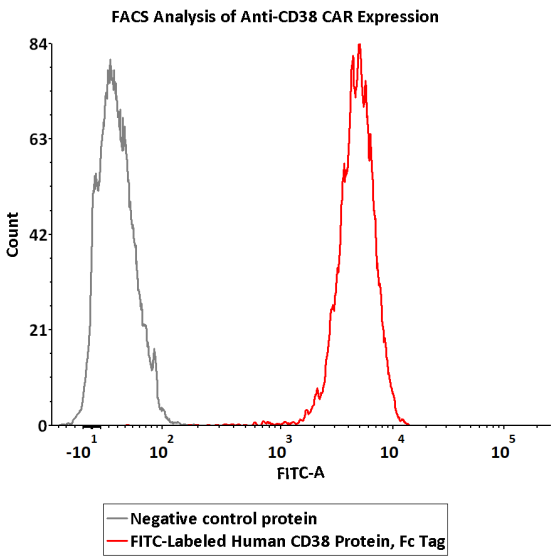


Immobilized Anti-CD38 Antibody (Daratumumab), Human IgG1 at 2 µg/mL (100 µL/well) can bind FITC-Labeled Human CD38, Fc Tag (Cat. No. CD8-HF255) with a linear range of 0.078-0.625 µg/mL (QC tested).



Immobilized Monoclonal Anti-CD38 Antibody, Human IgG1 at 2 µg/mL (100 µL/well) can bind FITC-Labeled Human CD38, Fc Tag (Cat. No. CD8-HF255) with a linear range of 0.039-1.25 ug/mL (Routinely tested).

Bioactivity-FACS



2e5 of Anti-CD38 CAR-293 cells were stained with 100 µL of 3 µg/mL of FITC-Labeled Human CD38 Protein, Fc Tag (Cat. No. CD8-HF255) and negative control protein respectively. FITC signal was used to evaluate the binding activity (Routinely tested).

Background

CD antigen CD38 is also known as ADP-ribosyl cyclase 1, which belongs to the ADP-ribosyl cyclase family. CD38 is expressed at high levels in pancreas, liver, kidney, brain, testis, ovary, placenta, malignant lymphoma and neuroblastoma. CD38 is a multifunctional ectoenzyme that catalyzes the synthesis and hydrolysis of cyclic ADP-ribose (cADPR) from NAD⁺ to ADP-ribose. These reaction products are essential for the regulation of intracellular Ca²⁺. The loss of CD38 function is associated with impaired immune responses, metabolic disturbances, and behavioral modifications. The CD38 protein is a marker of cell activation. It has been connected to HIV infection, leukemias, myelomas, solid tumors, type II diabetes mellitus and bone metabolism. CD38 has been used as a prognostic marker in leukemia.



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