

**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 56.3 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.

**Endotoxin**

Less than 1.0 EU per µg by the LAL method.

**Purity**

&gt;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.*

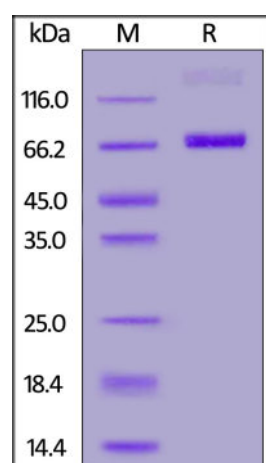
**Storage**

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.*

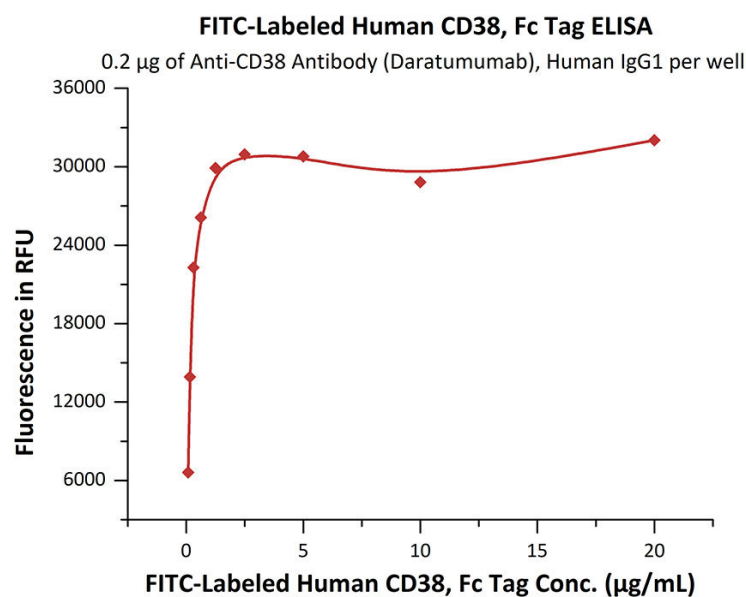
This product is stable after storage at:

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

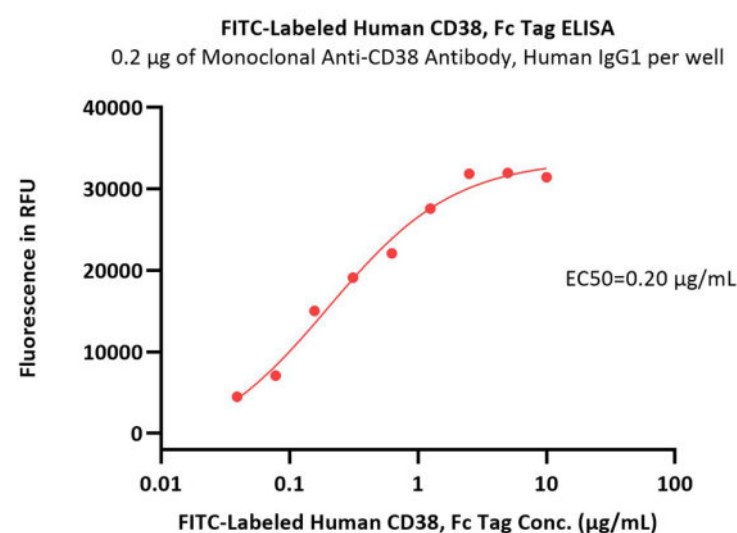
**SDS-PAGE**

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 µg/mL (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<sup>+</sup> to ADP-ribose. These reaction products are essential for the regulation of intracellular Ca<sup>2+</sup>. 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.

**Clinical and Translational Updates**

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.