

Human CD38 Protein, His Tag (MALS verified)

Catalog # CD8-H5224



BIOSYSTEMS
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Surprise Inside!

Synonym

CD38, T10, cADPr hydrolase 1

Source

Human CD38, His Tag (CD8-H5224) is expressed from human 293 cells (HEK293). It contains AA Val 43 - Ile 300 (Accession # [NP_001766](#)).

Predicted N-terminus: Val 43

Molecular Characterization

CD38 (Val 43 - Ile 300)
NP_001766 Poly-his

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

The protein has a calculated MW of 30.7 kDa. The protein migrates as 35-45 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 0.2 EU per µg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

>95% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 µm filtered solution in 50 mM MES, 100 mM NaCl, pH 6.5 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

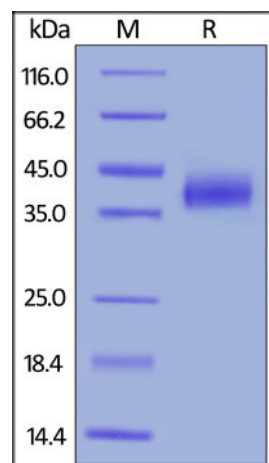
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please 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.

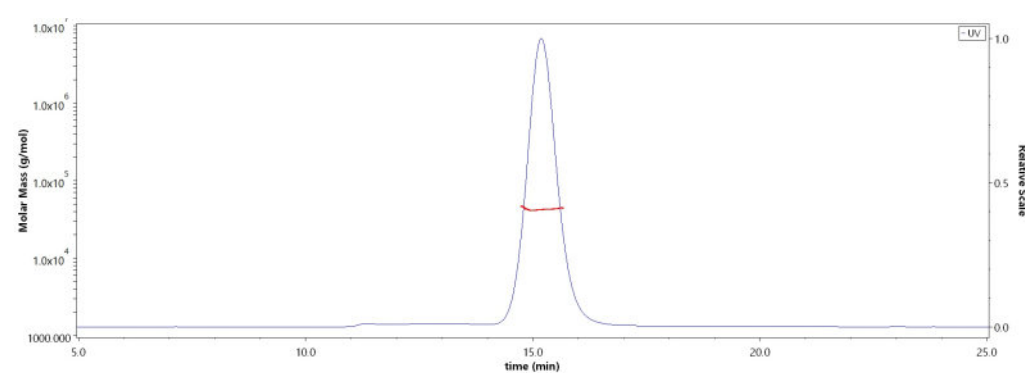
SDS-PAGE



Human CD38, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-ELISA

SEC-MALS



The purity of Human CD38, His Tag (Cat. No. CD8-H5224) is more than 95% and the molecular weight of this protein is around 35-45 kDa verified by SEC-MALS.

[Report](#)

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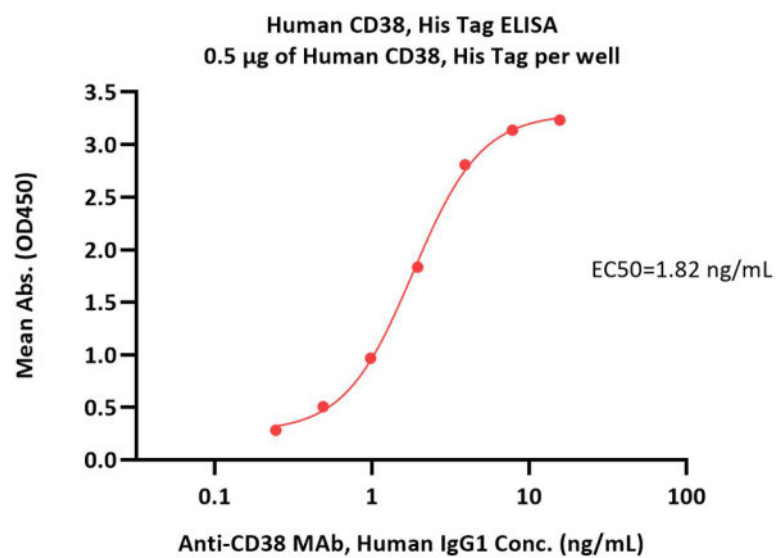
9/6/2024

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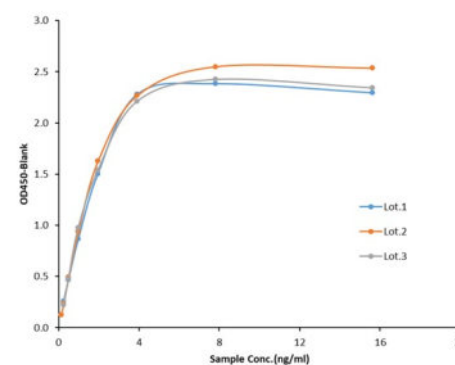
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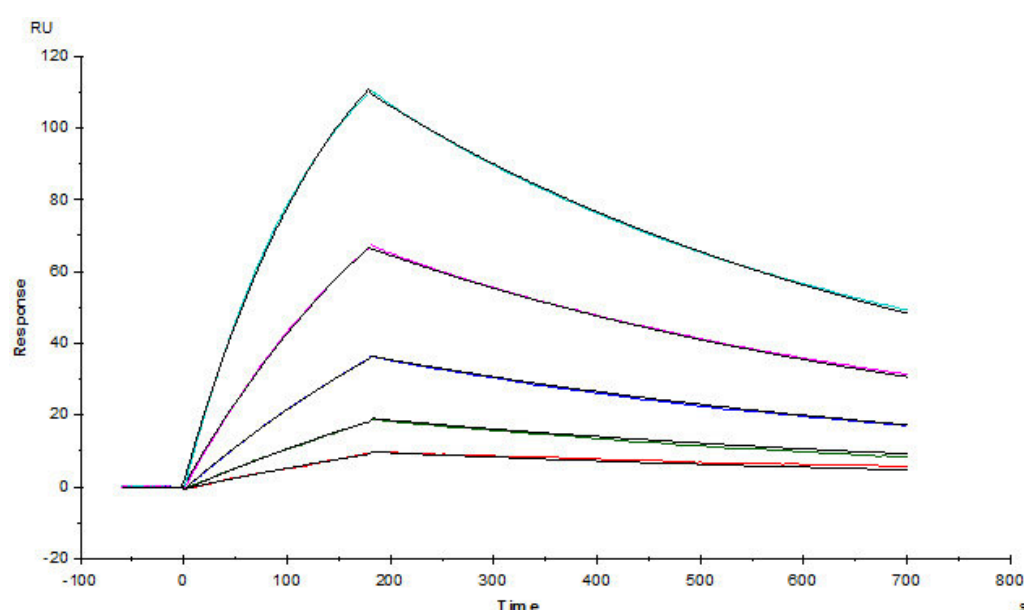
Batch consistency



Lot. No.	EC50(µg/mL)
Lot. No. 1	0.0015
Lot. No. 2	0.0014
Lot. No. 3	0.0013

Immobilized Human CD38, His Tag (Cat. No. CD8-H5224) at 5 µg/mL (100 µL/well) can bind Anti-CD38 MAb, Human IgG1 with a linear range of 0.2-4 ng/mL (QC tested).

Bioactivity-SPR



Anti-CD38 mAb (Human IgG1) captured on CM5 chip via anti-human IgG Fc antibodies surface, can bind Human CD38, His Tag (Cat. No. CD8-H5224) with an affinity constant of 4.98 nM as determined in a SPR assay (Biacore T200) (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.

Clinical and Translational Updates

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