

# Rat CD38 Protein, His Tag (MALS verified)

Catalog # CD8-R52H3



## Synonyms

CD38, T10, cADPr hydrolase 1

## Source

Rat CD38 Protein, His Tag (CD8-R52H3) is expressed from human 293 cells (HEK293). It contains AA Trp 45 – Val 303 (Accession # [Q64244](#)).

Predicted N-terminus: Trp 45

## Molecular Characterization

CD38(Trp 45 – Val 303)  
Q64244

Poly-his

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

The protein has a calculated MW of 31.6 kDa. The protein migrates as 37-43 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

The protein is designed as a dimer.

## Endotoxin

Less than 1.0 EU per µg by the LAL method / rFC method.

## Purity

>90% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

## 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.**

## Shipping and Storage

This product is shipped at ambient temperature.

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

**Please avoid repeated freeze-thaw cycles.**

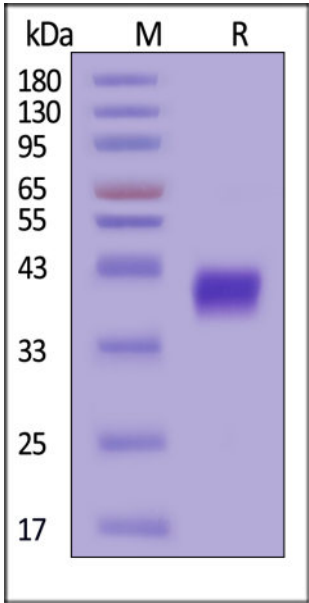
This product is stable after storage at:

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

## ACRO Quality Management System

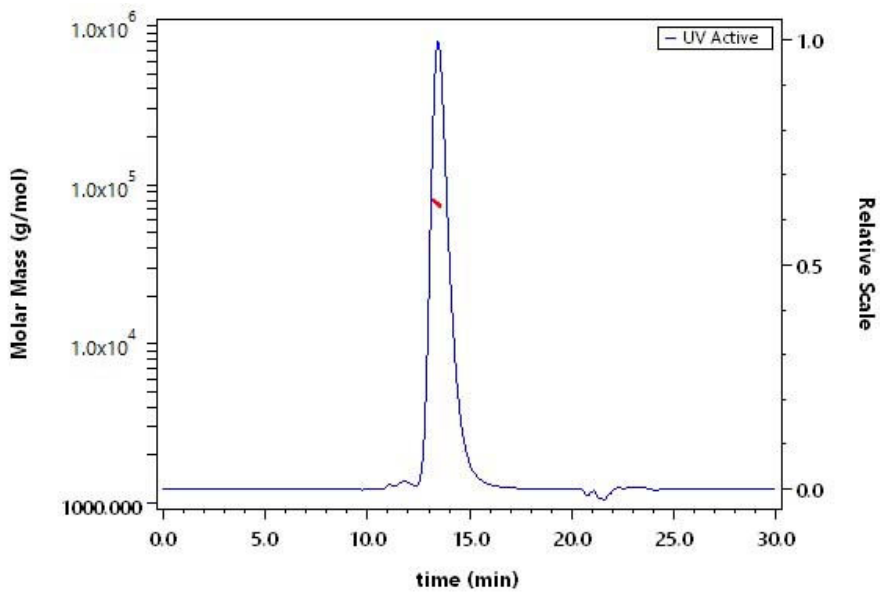
- [QMS\(ISO, GMP\)](#)
- [Quality Advantages](#)
- [Quality Control Process](#)

SDS-PAGE



Rat CD38 Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

SEC-MALS



The purity of Rat CD38 Protein, His Tag (Cat. No. CD8-R52H3) is more than 90% and the molecular weight of this protein is around 64-84 kDa verified by SEC-MALS.

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 D+ 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.



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