

# Recombinant Human CD38 Protein

Catalog No.: RP00151 **Recombinant**

## Sequence Information

Species	Gene ID	Swiss Prot
Human	952	P28907

### Tags

C-His

### Synonyms

CD38;ADPRC 1;ADPRC1

## Product Information

Source	Purification
HEK293 cells	> 95% by SDS-PAGE.

Calculated MW	Observed MW
30.71 kDa	40-55 kDa

### Endotoxin

< 0.1 EU/μg of the protein by LAL method.

### Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Contact us for customized product form or formulation.

### Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## Contact

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## Background

The protein is a non-lineage-restricted, type II transmembrane glycoprotein that synthesizes and hydrolyzes cyclic adenosine 5'-diphosphate-ribose, an intracellular calcium ion mobilizing messenger. The release of soluble protein and the ability of membrane-bound protein to become internalized indicate both extracellular and intracellular functions for the protein. This protein has an N-terminal cytoplasmic tail, a single membrane-spanning domain, and a C-terminal extracellular region with four N-glycosylation sites. Crystal structure analysis demonstrates that the functional molecule is a dimer, with the central portion containing the catalytic site. It is used as a prognostic marker for patients with chronic lymphocytic leukemia.

## Basic Information

### Description

Recombinant Human CD38 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Val43-Ile300) of human CD38 (Accession #NP\_001766.2) fused with a 6×His tag at the C-terminus.

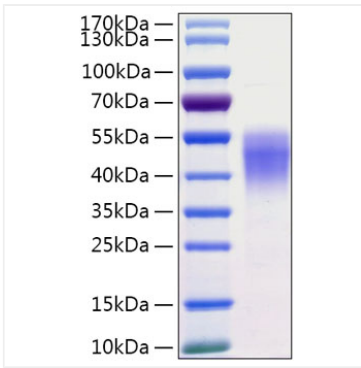
### Bio-Activity

1. Measured by its binding ability in a functional ELISA. Immobilized Human CD38 Protein at 1 μg/mL (100 μL/well) can bind CD38 Rabbit pAb with a linear range of 0.244-3.2 ng/mL. 2. Loaded CD38 Rabbit mAb (Catalog: A20215) on ProA Biosensor, can bind Human CD38 Protein, C-His (Catalog: RP00151) with an affinity constant of 4.1 nM as determined in BLI assay (Gator).

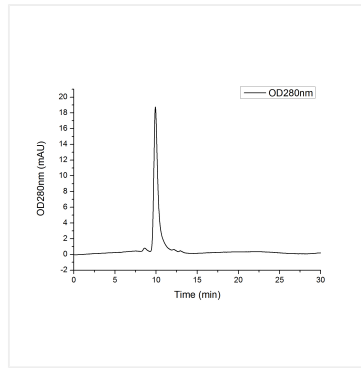
### Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

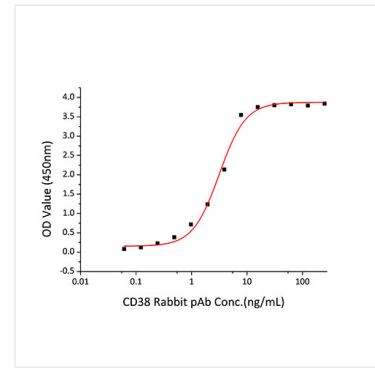
## Validation Data



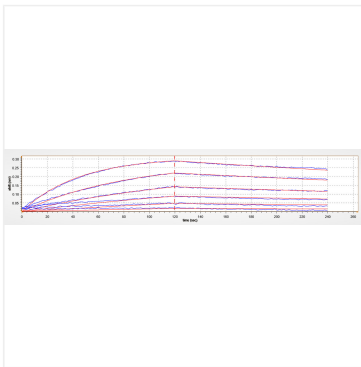
Active Recombinant Human CD38 Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 47 kDa.



The purity of Human CD38 Protein (Cat.RP00151) was greater than 95% as determined by SEC-HPLC.



Immobilized Human CD38 Protein at 1 $\mu$ g/mL (100  $\mu$ L/well) can bind CD38 Rabbit pAb with a linear range of 0.244-3.2 ng/mL.



Loaded CD38 Rabbit mAb (Catalog:A20215) on ProA Biosensor, can bind Human CD38 Protein, C-His (Catalog: RP00151) with an affinity constant of 4.1 nM as determined in BLI assay (Gator).