

CD38
Catalog # PVGS1598**Specification**

CD38 - Product Information

Primary Accession [P28907](#)
Species
Human

Sequence
Val43-Ile300

Purity
> 95% as analyzed by SDS-PAGE

Endotoxin Level
< 1 EU/ µg of protein by gel clotting method

Biological Activity
Immobilized CD38, Human at 1.0 µg/ml (100 µl/well) can bind Human CD38 Antibody (38.F2), Mouse with EC₅₀ = 1.640 ng/ml when detected by M6 Goat Anti Mouse (Fc).

Expression System
HEK 293

Formulation **Lyophilized from a 0.2 µm filtered solution in PBS.**

Reconstitution
It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in ddH₂O or PBS up to 100 µg/ml.

Storage & Stability
Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

CD38 - Additional Information

Gene ID 952

Other Names
ADP-ribosyl cyclase/cyclic ADP-ribose hydrolase 1, 3.2.2.-, 3.2.2.6, 2'-phospho-ADP-ribosyl cyclase, 2'-phospho-ADP-ribosyl cyclase/2'-phospho-cyclic-ADP-ribose transferase, 2.4.99.20, 2'-phospho-cyclic-ADP-ribose transferase, ADP-ribosyl cyclase 1, ADPRC 1, Cyclic ADP-ribose hydrolase 1, cADPR hydrolase 1, T10, CD38, CD38

Target Background
CD38 (also referred to as T10 antigen) is a nonlineage-restricted type II transmembrane

glycoprotein that has emerged as an intracellular calcium ion mobilizing messenger. It can serve as an ectoenzyme that catalyzes the synthesis and hydrolysis of cyclic ADP-ribose. The enzymatic functions of CD38 probably contribute to an array of its immunoregulatory functions. It has been found on the surface of many immune cells (white blood cells), including CD4+, CD8+, B lymphocytes and natural killer cells. Soluble CD38 and the ability of membrane-bound CD38 to become internalized in response to appropriate stimuli suggest that extracellular and intracellular roles for this protein are equally plausible.

CD38 - Protein Information

Name CD38

Function

Synthesizes cyclic ADP-ribose (cADPR), a second messenger for glucose-induced insulin secretion (PubMed:7961800, PubMed:8253715). Synthesizes the Ca(2+) mobilizer nicotinate-adenine dinucleotide phosphate, NAADP(+), from 2'-phospho-cADPR and nicotinic acid, as well as from NADP(+) and nicotinic acid. At both pH 5.0 and pH 7.4 preferentially transforms 2'-phospho-cADPR into NAADP(+), while preferentially cleaving NADP(+) to cADPR and ADPRP rather than into NADDP(+) (PubMed:16690024). Has cADPR hydrolase activity (PubMed:7961800, PubMed:8253715).

Cellular Location

Cell surface. Membrane; Single-pass type II membrane protein

Tissue Location

Expressed at high levels in pancreas, liver, kidney, brain, testis, ovary, placenta, malignant lymphoma and neuroblastoma.

CD38 - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

CD38 - Images