

# CD38 (ADP Ribosyl Cyclase 1) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone FS02 ]  
Catalog # AH12734

## Product Information

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<b>Application</b>	IF, FC
<b>Primary Accession</b>	<a href="#">P28907</a>
<b>Other Accession</b>	<a href="#">952_479214</a>
<b>Reactivity</b>	Human
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Isotype</b>	Mouse / IgG1, kappa
<b>Clone Names</b>	FS02
<b>Calculated MW</b>	34328

## Additional Information

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<b>Gene ID</b>	952
<b>Other Names</b>	ADP-ribosyl cyclase/cyclic ADP-ribose hydrolase 1, 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
<b>Application Note</b>	IF~~1:50~200 FC~~1:10~50
<b>Storage</b>	Store at 2 to 8°C. Antibody is stable for 24 months.
<b>Precautions</b>	CD38 (ADP Ribosyl Cyclase 1) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	CD38
<b>Function</b>	Multifunctional transmembrane glycoprotein able to exert enzymatic activities and also to mobilize calcium, to transduce signals, to adhere to hyaluronan and to other ligands. Synthesizes cyclic ADP-ribose (cADPR), a second messenger for glucose-induced insulin secretion (PubMed: <a href="#">7961800</a> , PubMed: <a href="#">8253715</a> ). 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](#)). Functions also as a receptor that binds the ligand CD31 on endothelial cells, promoting lymphocyte activation, proliferation, and migration across the endothelial barrier (PubMed:[9551996](#)). Involved in the regulation of crucial dendritic cell functions acquired at the mature stage, such as CCL21-driven migration, survival, and Th1-polarizing activity (PubMed:[16293598](#)). In lamina propria T lymphocytes, CD38/CD31 cognate interactions initiate a multistep signaling pathway resulting in activation of LCK and LAT, followed by cytokine release (PubMed:[11259373](#)).

**Cellular Location**

Cell surface. Cell membrane; Single-pass type II membrane protein.  
Note=Localizes in membrane lipid domains.

**Tissue Location**

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

## Background

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This antibody reacts with a type II membrane glycopeptide with a transmembrane sequence near the NH2-terminus. CD38 is a type II transmembrane glycoprotein that is present on early B- and T-cell lineages and activated B- and T-cells but is absent from most mature resting peripheral lymphocytes. CD38 is also found on thymocytes, pre-B cells, germinal center B-cells, mitogen-activated T-cells, monocytes and Ig-secreting plasma cells. CD38 is expressed on CD34+ cells. The CD34+CD38- population of hematopoietic stem cells defines the most pluripotent cells (e.g. blast colony forming cells).

## References

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Deaglio S et. al. J Immunol. 1998;160(1):395-402

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.