

Anti-CD38 Antibody

Catalog # AP95505

Product Information

Application	FC, IF/IC
Primary Accession	P28907
Reactivity	Human
Host	Mouse
Clonality	Monoclonal (clone: HIT2)
Calculated MW	34328

Additional Information

Gene ID	952
Other Names	ADP-ribosyl cyclase/cyclic ADP-ribose hydrolase 1; 2'-phospho-ADP-ribosyl cyclase; 2'-phospho-ADP-ribosyl cyclase/2'-phospho-cyclic-ADP-ribose transferase; 2'-phospho-cyclic-ADP-ribose transferase; ADP-ribosyl cyclase 1; ADPRC 1; Cyclic ADP-ribose hydrolase 1; cADPr hydrolase 1; T10; CD antigen CD38
Target/Specificity	Native purified human CD38.
Dilution	FC~~FC (1/500 - 1/2000) IF/IC~~N/A
Format	Mouse IgG1. Liquid in PBS, pH 7.3, and 0.02% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	CD38
Function	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: 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). 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](#)).

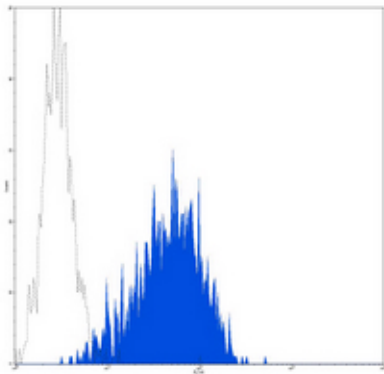
Cellular Location

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.

Images



Flow cytometric analysis of human lymphocytes treated with PHA and ConA using Anti-CD38 Antibody, followed by anti-mouse IgG PE.

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