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CD38 Antibody

Rabbit mAb
Catalog # AP90746

Product Information

Application	WB, IHC
Primary Accession	P28907
Reactivity	Human
Clonality	Monoclonal
Other Names	CD38 antigen; ADP ribosyl cyclase 1; Cd38-rs1; ADP ribosyl cyclase; ADP ribosyl cyclase/cyclic ADP-ribose hydrolase; ADP-ribosyl cyclase 1; cADPr hydrolase 1; CD38 antigen (p45); CD38 molecule;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	34328

Additional Information

Dilution	WB 1:500~1:2000 IHC 1:100~1:500
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human CD38
Description	CD38 is a transmembrane protein involved in several important biological processes, including immune response, insulin secretion, and social behavior. Synthesizes cyclic ADP-ribose, a second messenger for glucose-induced insulin secretion. Also has cADPr hydrolase activity. Also moonlights as a receptor in cells of the immune system.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

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 anf LAT, followed by cytokine release (PubMed:11259373).

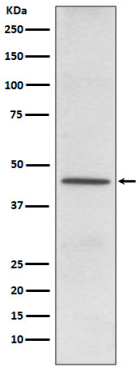
Cellular Location

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



Western blot analysis of CD38 expression in HeLa cell lysate.

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Immunohistochemical analysis of paraffin-embedded human tonsil, using CD38 Antibody.

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