

CD38 (14S19) Rabbit Monoclonal Antibody

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Catalog # AP93826

Product Information

Application	WB, IHC-P, IF
Primary Accession	P56528
Reactivity	Mouse
Clonality	Monoclonal
Calculated MW	34408

Additional Information

Gene ID	12494
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, I-19, NIM-R5 antigen, CD38, Cd38
Dilution	WB~~1:1000 IHC-P~~N/A IF~~1:50~200
Storage Conditions	-20°C

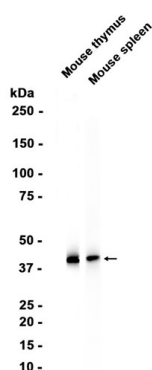
Protein Information

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. 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 (PubMed: 11829748). 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(+). Has cADPR hydrolase activity. Functions also as a receptor that binds the ligand CD31 on endothelial cells, promoting lymphocyte activation, proliferation, and migration across the endothelial barrier. Involved in the regulation of crucial dendritic cell functions acquired at the mature stage, such as CCL21- driven migration, survival, and Th1-polarizing activity. 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.

Background

This gene encodes 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. Knockout mice deficient for this gene display altered humoral immune responses. In addition, knockout mice exhibit higher locomotor activity and defects in nurturing and social behaviors. [provided by RefSeq, Sep 2015]

Images



Western blot analysis of extracts from Mouse thymus,spleen tissue using AP93826 at 1:1000.

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