CD38 Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	CD38, Monoclonal Antibody
Full Product Name	Anti-Human CD38 Monoclonal Antibody (PE Conjugated)
Product Gene Name	anti-CD38 antibody
Product Synonym Names	ADP-ribosyl cyclase/cyclic ADP-ribose hydrolase 1; CD38; 2'-phospho-ADP-ribosyl cyclase; 2'-phospho-cyclic-ADP-ribose transferase; ADP-ribosyl cyclase 1; ADPRC 1; Cyclic ADP-ribose hydrolase 1; cADPr hydrolase 1; T10; CD38
Clonality	Monoclonal
Isotype	IgG1
Clone Number	HIT2
Host	Mouse
Species Reactivity	Human
Form/Format	PBS with 0.05% Proclin300, 1% BSA
Preparation and Storage	Store at 2-8 degree C and protect from prolonged exposure to light. Do not freeze.
Matching Pairs	Antibody: CD38 (MBS2558388) Isotype Control: IgG1 Clone #MOPC-21 (MBS2557732)
OMIM	107270
3D Structure	ModBase 3D Structure for P28907
Conjugation	PE
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-CD38 antibody	Flow Cytometry (FC/FACS)
Related Product Information for anti-CD38 antibody	CD38 is a 45 kD type II transmembrane glycoprotein also known as T10. It is an ADP-ribosyl hydrolase expressed at variable levels on hematopoietic cells and in some non-hematopoietic tissues (such as brain, muscles, and kidney). In humans, it is expressed at high levels on plasma cells and activated T and B cells. By functioning as both a cyclase and a hydrolase, CD38 mediates lymphocyte activation, adhesion, and the metabolism of cADPR and NAADP. CD31 is the ligand of CD38.
Other Notes	Small volumes of anti-CD38 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for CD38 purchase	MBS2558388 is an antibody targeting CD38. Also known as Anti-Human CD38 Monoclonal Antibody (PE Conjugated). Reactive in Human. Host: Mouse.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CD38. It may not necessarily be applicable to this product.

NCBI GI #	55977782
NCBI GeneID	952
NCBI Accession #	P28907.2

UniProt Primary Accession #	P28907
UniProt Related Accession #	P28907
NCBI Official Full Name	ADP-ribosyl cyclase/cyclic ADP-ribose hydrolase 1
NCBI Official Synonym Full Names	CD38 molecule
NCBI Official Symbol	CD38
NCBI Official Synonym Symbols	ADPRC1; ADPRC 1
UniProt Protein Name	ADP-ribosyl cyclase/cyclic ADP-ribose hydrolase 1
UniProt Synonym Protein Names	2'-phospho-ADP-ribosyl cyclase; 2'-phospho-ADP-ribosyl cyclase/2'-phospho-cyclic-ADP-ribose transferase (EC: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; CD_antigen: CD38
Protein Family	ADP-ribosyl cyclase/cyclic ADP-ribose hydrolase
UniProt Gene Name	CD38
UniProt Synonym Gene Names	ADPRC 1; cADPr hydrolase 1
UniProt Entry Name	CD38_HUMAN
NCBI Protein Information	ADP-ribosyl cyclase/cyclic ADP-ribose hydrolase 1
NCBI Summary for CD38	The protein encoded by this gene is 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. Crystal structure analysis demonstrates that the functional molecule is a dimer, with the central portion containing the catalytic site. It is used as a prognostic marker for patients with chronic lymphocytic leukemia. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Sep 2015]
UniProt Comments for CD38	CD38: 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. Belongs to the ADP-ribosyl cyclase family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: EC 3.2.2.6; EC 2.4.99.20; Cofactor and Vitamin Metabolism - nicotinate and nicotinamide; Hydrolase; Cell surface; Apoptosis; Lyase; Membrane protein, integral; Cell cycle regulation Chromosomal Location of Human Ortholog: 4p15 Cellular Component: cell surface; membrane; integral to membrane; plasma membrane; nucleus Molecular Function: transferase activity; phosphorus-oxygen lyase activity; NAD+ nucleosidase activity; NAD(P)+ nucleosidase activity Biological Process: response to drug; response to retinoic acid; metabolic process; positive regulation of transcription, DNA-dependent; positive regulation of insulin secretion; female pregnancy; signal transduction; positive regulation of cell growth; response to estradiol stimulus; B cell receptor signaling pathway; elevation of cytosolic calcium ion concentration; response to hydroperoxide; positive regulation of B cell proliferation; positive regulation of vasoconstriction; response to hypoxia; response to progesterone stimulus; negative regulation of transcription, DNA-dependent; negative regulation of bone resorption; negative regulation of apoptosis
Research Articles on CD38	**1.** The results indicate that folding and degradation of type III CD38 is effectively controlled in cells, providing further strong support of its physiological relevance.
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