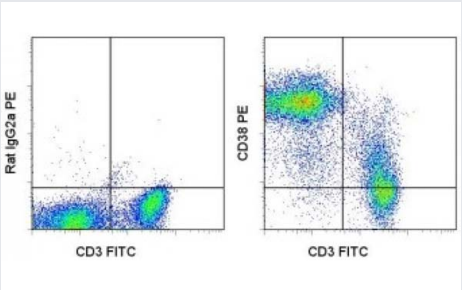
CD38 Antibody – Rat Monoclonal

PRODUCT OVERVIEW

Product Name	CD38, Monoclonal Antibody
Full Product Name	CD38 antibody (PE)
Product Gene Name	anti-CD38 antibody
Product Synonym Names	Rat monoclonal CD38 antibody (PE); Monoclonal CD38 antibody; Anti-CD38 antibody; CD-38; ADP-Ribosyl Cyclase antibody; CD 38; CD 38 antibody; CD-38 antibody; T10 antibody; CD38
Clonality	Monoclonal
Isotype	IgG2a kappa
Clone Number	90
Host	Rat
Species Reactivity	Mouse
Form/Format	Supplied in aqueous buffer with 0.09% sodium azide, may contain carrier protein/stabilizer.
Concentration	200 ug/ml (lot specific)
Specificity	Mouse
Preparation and Storage	Store at 2-8 degree C. Do not freeze. Protect from light.
Molecular Weight	13,788 Da
OMIM	107270
Conjugate	PE
Product Categories/Family for anti-CD38 antibody	Immunology
Applications Tested/Suitable for anti-CD38 antibody	Flow Cytometry (FC/FACS)
Application Notes for anti-CD38 antibody	FC/FACS: 0.125 ug/test A test is defined as the amount (ug) of antibody that will stain a cell sample in a final volume of 100 ul. Cell number should be determined empirically but can range from 105 to 108 cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.
Related Product Information for anti-CD38 antibody	The 90 monoclonal antibody reacts with the mouse CD38 molecule, an ~42 kDa type II transmembrane protein. CD38 is expressed at increasingly higher levels on B cells at each stage of B-cell differentiation, and is then down-regulated on germinal center B cells and mature plasma cells. Its expression is reported on a subpopulation of thymocytes, mature T cells, and NK cells. Crosslinking of CD38 on the surface of mature, resting B cells induces B-cell proliferation, which is enhanced by co-signals such as IL-4 and LPS. CD38, a counter-receptor for CD31, is an ectoenzyme with cyclase and hydrolase enzymatic activity and is speculated to play a role in lymphocyte activation and differentiation.
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	MBS5309360 is an antibody targeting CD38. Also known as CD38 antibody (PE). Reactive in Mouse. Host: Rat.



Flow Cytometry (FC/FACS) of anti-CD38 antibody
Staining of C57Bl/6 splenocytes with CD3e antibody (FITC) and 0.06 ug of Rat IgG2a K Isotype Control (PE) (left) or 0.06 ug of CD38 antibody (PE) (right). Cells in the lymphocyte gate were used for analysis.

ADDITIONAL DETAILS

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

NCBI GI #	1911103
NCBI GeneID	952
NCBI Accession #	BAA18966.1
UniProt Secondary Accession #	O00121; O00122; Q96HY4
UniProt Related Accession #	P28907
NCBI Official Full Name	CD38
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
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	Synthesizes the second messagers cyclic ADP-ribose and nicotinate-adenine dinucleotide phosphate, the former a second messenger for glucose-induced insulin secretion. Also has cADPr hydrolase activity. Also moonlights as a receptor in cells of the immune system.
Research Articles on CD38	**1.** Empathic response mediates the CD38-altruism association.

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