# CD38 Antibody – Mouse Monoclonal

## PRODUCT OVERVIEW

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| **Product Name** | CD38, Monoclonal Antibody |
| **Full Product Name** | Anti-CD38 Antibody-PerCP/Cy5.5 labled |
| **Product Gene Name** | anti-CD38 antibody |
| **Clonality** | Monoclonal |
| **Isotype** | Mouse IgG1 |
| **Clone Number** | HIT2 |
| **Host** | Mouse |
| **Species Reactivity** | Human |
| **Purity/Purification** | The antibody was purified by affinity chromatography. |
| **Specificity** | Recognizes human CD38 |
| **Preparation and Storage** | Shipped and store at 4 degree C for one year. Do not freeze. |
| **Molecular Weight** | 300 |
| **OMIM** | 107270 |
| **3D Structure** | ModBase 3D Structure for P28907 |
| **Immunogen** | Native purified human CD38. |
| **Conjugation** | PerCP/Cy5.5 |
| **Directions for Use** | 1. Take 100 ul peripheral blood anticoagulated by EDTA and add to the bottom of 5 ml tube. 2. Add 10 ul labeled antibody to the bottom of flow tube mixing with the whole blood, incubate for 20 minutes at room temperature away from light. 3. Add 2 ml RBC lysis buffer, incubate for 10 minutes away from light after mixing, dissolve red blood cells. 4. Sample tube is set to 1000 rpm centrifugation for 5 minutes, discard the supernatant. 5. Add 2 ml PBS wash buffer to resuspend the cells, then 1000 rpm centrifugation for 5 minutes, discard the supernatant. 6. Add 0.5 ml PBS wash buffer to resuspend the cells and detect by flow cytometry (sample should be determined on the day on the machine and can also be added fixation overnight at 4 degree C then measured). |
| **Product Categories/Family for anti-CD38 antibody** | Primary Antibodies |
| **Applications Tested/Suitable for anti-CD38 antibody** | Immunofluorescence (IF), Flow Cytometry (FC/FACS) |
| **Application Notes for anti-CD38 antibody** | 10 ul / assay |
| **Related Product Information for anti-CD38 antibody** | MBS8321905 is an antibody targeting CD38. Also known as Anti-CD38 Antibody-PerCP/Cy5.5 labled. Reactive in Human. Host: Mouse. Mouse monoclonal antibody PerCP/Cy5.5 labled to 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. |

## ADDITIONAL DETAILS

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

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| **NCBI GI #** | 55977782 |
| **NCBI GeneID** | 952 |
| **NCBI Accession #** | P28907.2 |
| **UniProt Primary Accession #** | P28907 |
| **UniProt Secondary Accession #** | O00121; O00122; Q96HY4 |
| **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** | T10; 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; cADPr hydrolase 1; CD38 antigen (p45); NAD(+) nucleosidase; ADP-ribosyl cyclase 1; 2'-phospho-ADP-ribosyl cyclase; 2'-phospho-cyclic-ADP-ribose transferase; 2'-phospho-ADP-ribosyl cyclase/2'-phospho-cycli |
| **NCBI Summary for CD38** | CD38 is a novel multifunctional ectoenzyme widely expressed in cells and tissues especially in leukocytes. CD38 also functions in cell adhesion,signal transduction and calcium signaling. [provided by RefSeq, Jul 2008] |
| **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.<br><br>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<br><br>Chromosomal Location of Human Ortholog: 4p15<br><br>Cellular Component: cell surface; membrane; integral to membrane; plasma membrane; nucleus<br><br>Molecular Function: transferase activity; phosphorus-oxygen lyase activity; NAD+ nucleosidase activity; NAD(P)+ nucleosidase activity<br><br>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.** nominal associations were found between autism spectrum disorder scores and single-nucleotide polymorphisms in OXT, ARNT2 and CD38 |

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