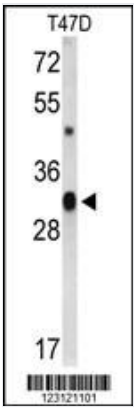
# CD47 Antibody – Rabbit Polyclonal

## PRODUCT OVERVIEW

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| **Product Name** | CD47, Polyclonal Antibody |
| **Full Product Name** | CD47, CT (CD47, MER6, Leukocyte surface antigen CD47, Antigenic surface determinant protein OA3, Integrin-associated protein, Protein MER6, CD47) (PE) |
| **Product Gene Name** | anti-CD47 antibody |
| **Product Synonym Names** | CD47; MER6; Leukocyte surface antigen CD47; Antigenic surface determinant protein OA3; Integrin-associated protein; Protein MER6; CD47 |
| **Clonality** | Polyclonal |
| **Isotype** | IgG |
| **Host** | Rabbit |
| **Species Reactivity** | Human |
| **Form/Format** | Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with R-Phycoerythrin (PE). |
| **Purity/Purification** | Purified by Protein A Affinity Chromatography. |
| **Preparation and Storage** | Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: PE conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap. |
| **Molecular Weight** | 323 |
| **OMIM** | 601028 |
| **3D Structure** | ModBase 3D Structure for Q08722 |
| **Immunogen** | CD47 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide selected from the C-terminal region of human CD47. |
| **Conjugate** | PE |
| **Note** | Preservative Free |
| **Special Handling** | Light sensitive |
| **Product Categories/Family for anti-CD47 antibody** | Antibodies; CD Markers |
| **Applications Tested/Suitable for anti-CD47 antibody** | Western Blot (WB), FLISA |
| **Application Notes for anti-CD47 antibody** | WB: 1:100-500<br>FLISA: 1:1,000<br>Applications are based on unconjugated antibody. |
| **Related Product Information for anti-CD47 antibody** | CD47 antigen, also known as integrin associated protein (IAP), has a very broad tissue distribution. CD47 is expressed on all hematopoietic cells, including leukocytes, platelets and erythrocytes. It is also expressed on epithelial cells, endothelial cells, fibroblasts and many tumor cell lines. There are approximately 50.000 CD47 molecules per erythrocyte. The glycoprotein is deficient in erythrocytes of the rare Rh null phenotype. CD47 is a heavily N glycosylated cell membrane glycoprotein of apparent molecular weight 47-52 kDa. It may play a role as a signaltransducer in the regulation of cation fluxes across cell membranes and in the chemotactic and adhesive interactions of leukocytes with endothelial cells. |

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| **Product References and Citations for anti-CD47 antibody** | Hatherley D., et.al., Mol. Cell 31:266-277(2008). Wollscheid B., et.al., Nat. Biotechnol. 27:378-386(2009). |
| **Other Notes** | Small volumes of anti-CD47 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 CD47 purchase** | MBS6283301 is an antibody targeting CD47. Also known as CD47, CT (CD47, MER6, Leukocyte surface antigen CD47, Antigenic surface determinant protein OA3, Integrin-associated protein, Protein MER6, CD47) (PE). Reactive in Human. Host: Rabbit. |




**Western Blot (WB) of anti-CD47 antibody**
Western blot analysis of CD47 Antibody (C-term) in T47D cell line lysates (35ug/lane). CD47 (arrow) was detected using the purified Pab.

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CD47. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 1171879 |
| **NCBI GeneID** | 961 |
| **NCBI Accession #** | Q08722.1 |
| **UniProt Primary Accession #** | Q08722 |
| **UniProt Secondary Accession #** | Q53Y71; Q96A60; A8K198; D3DN59 |
| **UniProt Related Accession #** | Q08722 |
| **NCBI Official Full Name** | Leukocyte surface antigen CD47 |
| **NCBI Official Synonym Full Names** | CD47 molecule |
| **NCBI Official Symbol** | CD47 |
| **NCBI Official Synonym Symbols** | IAP; OA3; MER6 |
| **UniProt Protein Name** | Leukocyte surface antigen CD47 |
| **UniProt Synonym Protein Names** | Antigenic surface determinant protein OA3; Integrin-associated protein; IAP; Protein MER6; CD_antigen: CD47 |
| **Protein Family** | Leukocyte surface antigen |
| **UniProt Gene Name** | CD47 |
| **UniProt Synonym Gene Names** | MER6; IAP |
| **UniProt Entry Name** | CD47_HUMAN |
| **NCBI Protein Information** | leukocyte surface antigen CD47; CD47 glycoprotein; Rh-related antigen; integrin associated protein; integrin-associated protein; integrin-associated signal transducer; antigenic surface determinant protein OA3; antigen identified by monoclonal antibody 1D |

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| **NCBI Summary for CD47** | This gene encodes a membrane protein, which is involved in the increase in intracellular calcium concentration that occurs upon cell adhesion to extracellular matrix. The encoded protein is also a receptor for the C-terminal cell binding domain of thrombospondin, and it may play a role in membrane transport and signal transduction. This gene has broad tissue distribution, and is reduced in expression on Rh erythrocytes. Alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Jul 2010] |
| **UniProt Comments for CD47** | CD47: Has a role in both cell adhesion by acting as an adhesion receptor for THBS1 on platelets, and in the modulation of integrins. Plays an important role in memory formation and synaptic plasticity in the hippocampus. Receptor for SIRPA, binding to which prevents maturation of immature dendritic cells and inhibits cytokine production by mature dendritic cells. Interaction with SIRPG mediates cell-cell adhesion, enhances superantigen-dependent T-cell-mediated proliferation and costimulates T-cell activation. May play a role in membrane transport and/or integrin dependent signal transduction. May prevent premature elimination of red blood cells. May be involved in membrane permeability changes induced following virus infection. 4 isoforms of the human protein are produced by alternative splicing.<br><br>Protein type: Membrane protein, integral; Membrane protein, multi-pass; Motility/polarity/chemotaxis<br><br>Chromosomal Location of Human Ortholog: 3q13.1-q13.2<br><br>Cellular Component: integral to plasma membrane; plasma membrane<br><br>Molecular Function: protein binding<br><br>Biological Process: integrin-mediated signaling pathway; extracellular matrix organization and biogenesis; response to bacterium; positive regulation of phagocytosis; positive regulation of cell proliferation; positive regulation of cell-cell adhesion; positive regulation of T cell activation; opsonization; blood coagulation; cell adhesion; leukocyte migration; positive regulation of inflammatory response |
| **Research Articles on CD47** | **1.** CD47 associates with and regulates VEGFR2 in T cells. CD47 signaling modulates the ability of VEGF to regulate proliferation and TCR signaling, and autocrine production of vascular endothelial growth factor by T cells contributes to this regulation. |
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