CD47 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

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) (MaxLight 550)
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 MaxLight550.
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: MaxLight550 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	MaxLight550
Note	Preservative Free
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 FLISA: 1:1,000 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.
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	MBS6283298 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) (MaxLight 550). Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

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

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
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. Protein type: Membrane protein, integral; Membrane protein, multi-pass; Motility/polarity/chemotaxis Chromosomal Location of Human Ortholog: 3q13.1-q13.2 Cellular Component: integral to plasma membrane; plasma membrane Molecular Function: protein binding 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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