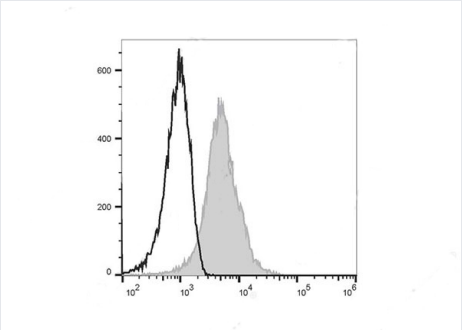
CD47 Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	CD47, Monoclonal Antibody
Full Product Name	FITC Anti-Human CD47 Antibody [B6H12]
Product Gene Name	anti-CD47 antibody
Product Synonym Names	IAP; Rh-associated protein; gp42; integrin-associated protein; neurophilin
Clonality	Monoclonal
Isotype	Mouse IgG1, kappa
Clone Number	B6H12
Host	Mouse
Species Reactivity	Human
Form/Format	Phosphate buffered solution, pH 7.2, containing 0.09% stabilizer and 1% protein protectant.
Preparation and Storage	This product can be stored at 2-8 degree C for 12 months. Please protected from prolonged exposure to light and do not freeze.
Matching Pairs	Antibody: CD47 (MBS2579821) Isotype Control: IgG1 Clone #MOPC-21 (MBS2557731)
Molecular Weight	323
OMIM	601028
3D Structure	ModBase 3D Structure for Q08722
Conjugation	FITC
Product Categories/Family for anti-CD47 antibody	Flow Cytometry Antibodies; Primary Antibodies; Flow Cytometry Antibodies; Immunology; Innate Immunity
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-CD47 antibody	Flow Cytometry (FC/FACS/FCM)
Related Product Information for anti-CD47 antibody	CD47 also known as Rh-associated protein, gp42, integrin-associated protein (IAP), and neurophilin, is a 42-52 kD member of the immunoglobulin superfamily containing a five-pass transmembrane attachment. Two splice variants have been described in the cytoplasmic tail, the shorter form is expressed in bone-marrow-derived cells, endothelial cells, and fibroblasts while the longer form is expressed by neural tissues. CD47 expression is widely distributed in hematopoietic cells including thymocytes, T cells, B cells, monocytes, platelets, and erythrocytes as well as epithelial cells, endothelial cells, fibroblasts, and neural tissues. CD47 functions as an adhesion molecule and thrombospondin receptor and is non-covalently associated with beta3 integrins CD51/CD61, CD41/CD61. Thrombospondin is a ligand for CD47; in the absence of CD47 mice show defects in host defense and beta3 integrin-dependent ligand binding, migration, and cellular activation. CD47 is also part of the Rh complex on erythrocytes.
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	MBS2579821 is an antibody targeting CD47. Also known as FITC Anti-Human CD47 Antibody [B6H12]. Reactive in Human. Host: Mouse.



Flow Cytometry (FC/FACS) of anti-CD47 antibody
Staining of normal Human peripheral blood cells with FITC Anti-Human CD47 Antibody [B6H12] (filled gray histogram) or FITC Mouse IgG1, kappa Isotype Control (empty black histogram). Cells in the lymphocytes gate were used for analysis.

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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