10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-CD47 (Extracellular region) Antibody

Catalog # AN1709

Product Information

Application	ICC, IP
Primary Accession	Q08722
Host	Mouse
Clonality	Mouse Monoclonal
Isotype	IgG1
Clone Names	M054
Calculated MW	35214

Additional Information

Gene ID	961
Other Names	Antigenic surface determinant protein OA3, Integrin-associated protein, IAP, Leukocyte surface antigen CD47, MER6
Target/Specificity	CD47 is a five-pass transmembrane protein expressed on all normal cells, as well as in cancer cells. CD47 is used by macrophages to distinguish between "self" and "non-self" cells. SIRPα expressed on myeloid cells including macrophages, and neuronal cells in the central nervous system, can bind CD47. SIRPα cytoplasmic tail can inhibit macrophage phagocytosis towards CD47-expressing cells. Thus, the CD47/SIRPα pahtway serves as an innate immune checkpoint. Additionally, CD47 was reported to modulate lymphocyte cell activation and proliferation. CD47 is over-expressed in many types of cancer, and the expression level of CD47 on cancer cells is negatively associated with cancer survival. Monoclonal antibody therapies that can block CD47-SIRPα interaction are being actively pursued for clinical applications. In addition to SIRPα, CD47 interacts with thrombospondin-1, VEGFR2, FAS, and certain integrins in different contexts, and influences their downstream signaling.
Dilution	ICC~~N/A IP~~N/A
Format	Protein G Purified
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Anti-CD47 (Extracellular region) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.
Shipping	Blue Ice

Background

CD47 is a five-pass transmembrane protein expressed on all normal cells, as well as in cancer cells. CD47 is

used by macrophages to distinguish between "self" and "non-self" cells. SIRPα expressed on myeloid cells including macrophages, and neuronal cells in the central nervous system, can bind CD47. SIRPα cytoplasmic tail can inhibit macrophage phagocytosis towards CD47-expressing cells. Thus, the CD47/SIRPα pahtway serves as an innate immune checkpoint. Additionally, CD47 was reported to modulate lymphocyte cell activation and proliferation. CD47 is over-expressed in many types of cancer, and the expression level of CD47 on cancer cells is negatively associated with cancer survival. Monoclonal antibody therapies that can block CD47-SIRPα interaction are being actively pursued for clinical applications. In addition to SIRPα, CD47 interacts with thrombospondin-1, VEGFR2, FAS, and certain integrins in different contexts, and influences their downstream signaling.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.