



Rat Anti-Mouse CD47 (IAP) Monoclonal antibody, clone MIAP301 (CABT-L4507)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview

The MIAP301 monoclonal antibody reacts with mouse CD47 otherwise known as integrin-associated protein (IAP). CD47 is an approximately 50 kDa glycosylated five transmembrane protein that is ubiquitously expressed by both hematopoietic cells such as T and B lymphocytes, monocytes, platelets and erythrocytes and non-hematopoietic cells. CD47 is involved in a range of cellular processes, including apoptosis, proliferation, adhesion, and migration. Furthermore, it plays a key role in immune and angiogenic responses. CD47 is a receptor for thrombospondin-1 (TSP-1), a secreted glycoprotein that plays a role in vascular development and angiogenesis. CD47 is has been found to be overexpressed in many different tumor cells. Because of this, anti-CD47 monoclonal antibodies have been proposed and studied as a therapeutic treatment for human cancers. The MIAP301 antibody has been shown to neutralize CD47 in vivo and in vitro.

Target	Mouse CD47 (IAP)
Immunogen	C57BL/10 splenocytes
Isotype	IgG2a, κ
Source/Host	Rat
Species Reactivity	Mouse
Clone	MIAP301
Purification	Protein G purified. Purity>95%. Determined by SDS-PAGE
Conjugate	Functional Grade
Applications	in vivo CD47 blockade, IF

Molecular Weight	150 kDa
Format	0.2 µM filtered liquid. Purified from tissue culture supernatant in an animal free facility
Concentration	Lot specific
Size	5 mg
Buffer	PBS, pH 7.0. Contains no stabilizers or preservatives. [low endotoxin azide-free]
	Endotoxin level: <2EU/mg (<0.002EU/µg). Determined by LAL gel clotting assay
	Related dilution buffer: CABT-LB04
Preservative	None
Storage	The antibody solution should be stored undiluted at 4°C, and protected from prolonged exposure to light. Do not freeze.
Ship	Wet ice

BACKGROUND

Introduction	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]
Keywords	CD47;CD47 molecule;IAP;OA3;MER6;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 1D8;CD47 antigen (Rh-related antigen, integrin-associated signal transducer);

GENE INFORMATION

Official Symbol	CD47 molecule
Synonyms	CD47; CD47 molecule; IAP; OA3; MER6; 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 1D8; CD47 antigen (Rh-related antigen, integrin-associated signal transducer);
References	Xu, M. M., et al. (2017). "Dendritic Cells but Not Macrophages Sense Tumor Mitochondrial DNA

for Cross-priming through Signal Regulatory Protein alpha Signaling." *Immunity* 47(2): 363-373
e365. PubMed;
