

# CD47 Antibody

Rabbit mAb

Catalog # AP90295

## Product Information

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<b>Application</b>	WB, IF, FC, ICC
<b>Primary Accession</b>	<a href="#">Q08722</a>
<b>Reactivity</b>	Rat, Human, Mouse
<b>Clonality</b>	Monoclonal
<b>Other Names</b>	CD47; IAP; Integrin Associated Protein; MER6 ; OA3; Protein MER6 ; Antigen identified by monoclonal antibody 1D8
<b>Isotype</b>	Rabbit IgG
<b>Host</b>	Rabbit
<b>Calculated MW</b>	35214

## Additional Information

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<b>Dilution</b>	WB 1:1000~1:2000 ICC/IF 1:50~1:200 FC 1:50
<b>Purification</b>	Affinity-chromatography
<b>Immunogen</b>	A synthesized peptide derived from human CD47
<b>Description</b>	CD47 is an integral membrane protein that plays a role in the regulation of cation fluxes across cell membranes. Specifically, CD47 is involved in the increase in intracellular calcium concentration that occurs upon cell adhesion to the extracellular matrix. It is also a receptor for the C-terminal cell binding domain of thrombospondin (SIRP). CD47 is absent from Rh-null erythrocytes, but does play a role in cell adhesion in non-erythroid cells and may prevent premature elimination of erythrocytes.
<b>Storage Condition and Buffer</b>	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

## Protein Information

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<b>Name</b>	CD47
<b>Synonyms</b>	MER6
<b>Function</b>	Adhesive protein that mediates cell-to-cell interactions (PubMed: <a href="#">11509594</a> , PubMed: <a href="#">15383453</a> ). Acts as a receptor for thrombospondin THBS1 and as modulator of integrin signaling through the activation of heterotrimeric G proteins (PubMed: <a href="#">19004835</a> , PubMed: <a href="#">7691831</a> , PubMed: <a href="#">8550562</a> ). Involved in signal transduction, cardiovascular homeostasis, inflammation, apoptosis, angiogenesis, cellular self-renewal, and immunoregulation (PubMed: <a href="#">11509594</a> , PubMed: <a href="#">15383453</a> , PubMed: <a href="#">19004835</a> , PubMed: <a href="#">27742621</a> , PubMed: <a href="#">32679764</a> , PubMed: <a href="#">7691831</a> , PubMed: <a href="#">8550562</a> ). Plays a role in modulating pulmonary endothelin EDN1 signaling

(PubMed:[27742621](#)). Modulates nitrous oxide (NO) signaling, in response to THBS1, hence playing a role as a pressor agent, supporting blood pressure (By similarity). Plays an important role in memory formation and synaptic plasticity in the hippocampus (By similarity). Receptor for SIRPA, binding to which prevents maturation of immature dendritic cells and inhibits cytokine production by mature dendritic cells (PubMed:[11509594](#)). Interaction with SIRPG mediates cell-cell adhesion, enhances superantigen-dependent T-cell-mediated proliferation and costimulates T-cell activation (PubMed:[15383453](#)). Positively modulates FAS-dependent apoptosis in T-cells, perhaps by enhancing FAS clustering (By similarity). Plays a role in suppressing angiogenesis and may be involved in metabolic dysregulation during normal aging (PubMed:[32679764](#)). In response to THBS1, negatively modulates wound healing (By similarity). Inhibits stem cell self- renewal, in response to THBS1, probably by regulation of the stem cell transcription factors POU5F1/OCT4, SOX2, MYC/c-Myc and KLF4 (By similarity). May play a role in membrane transport and/or integrin dependent signal transduction (PubMed:[7691831](#)). May prevent premature elimination of red blood cells (By similarity).

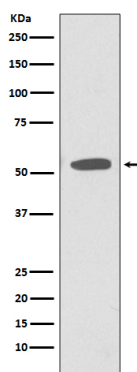
#### Cellular Location

Cell membrane; Multi-pass membrane protein

#### Tissue Location

Very broadly distributed on normal adult tissues, as well as ovarian tumors, being especially abundant in some epithelia and the brain. Macrophages (PubMed:39121194)

## Images



Western blot analysis of extracts of NIH/3T3 cell lysate, using CD47 antibody.

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