

CD47 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP9137b**Specification**

CD47 Antibody (C-term) Blocking Peptide - Product InformationPrimary Accession [Q08722](#)**CD47 Antibody (C-term) Blocking Peptide - Additional Information**

Gene ID 961

Other Names

Leukocyte surface antigen CD47, Antigenic surface determinant protein OA3, Integrin-associated protein, IAP, Protein MER6, CD47, CD47, MER6

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP9137b](/products/AP9137b) was selected from the C-term region of human CD47. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

CD47 Antibody (C-term) Blocking Peptide - Protein Information

Name CD47

Synonyms MER6

Function

Adhesive protein that mediates cell-to-cell interactions (PubMed:[11509594](http://www.uniprot.org/citations/11509594), PubMed:[15383453](http://www.uniprot.org/citations/15383453)). Acts as a receptor for thrombospondin THBS1 and as modulator of integrin signaling through the activation of heterotrimeric G proteins (PubMed:[19004835](http://www.uniprot.org/citations/19004835), PubMed:[8550562](http://www.uniprot.org/citations/8550562), PubMed:[7691831](http://www.uniprot.org/citations/7691831)). Involved in signal transduction, cardiovascular homeostasis, inflammation, apoptosis, angiogenesis, cellular self-renewal, and immunoregulation (PubMed:[11509594](#), PubMed:[15383453](#), PubMed:[19004835](#), PubMed:[8550562](#), PubMed:[7691831](#)).

href="http://www.uniprot.org/citations/27742621" target="_blank">27742621, PubMed:19004835, PubMed:8550562, PubMed:11509594, PubMed:7691831, PubMed:32679764, PubMed:15383453). 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

CD47 Antibody (C-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

CD47 Antibody (C-term) Blocking Peptide - Images

CD47 Antibody (C-term) Blocking Peptide - Background

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 signal transducer in the regulation of cation fluxes across cell membranes and in the chemotactic and adhesive interactions of leukocytes with endothelial cells.

CD47 Antibody (C-term) Blocking Peptide - References

Hatherley D., et.al., Mol. Cell 31:266-277(2008). Wollscheid B., et.al., Nat. Biotechnol.

27:378-386(2009).