

### **Anti-CD47 Antibody**

Rabbit polyclonal antibody to CD47 Catalog # AP61132

### **Specification**

### **Anti-CD47 Antibody - Product Information**

Application WB, IHC
Primary Accession Q08722
Other Accession Q61735
Reactivity Human,

Reactivity
Human, Mouse, Rat
Host
Clonality
Calculated MW
Human, Mouse, Rat
Rabbit
Polyclonal
35214

### **Anti-CD47 Antibody - Additional Information**

#### Gene ID 961

#### **Other Names**

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

# **Target/Specificity**

Recognizes endogenous levels of CD47 protein.

#### Dilution

WB~~WB (1/500 - 1/1000), IH (1/50 - 1/200) IHC~~1:100~500

#### **Format**

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

### **Storage**

Store at -20 °C.Stable for 12 months from date of receipt

### **Anti-CD47 Antibody - Protein Information**

#### Name CD47

### **Synonyms MER6**

#### **Function**

Adhesive protein that mediates cell-to-cell interactions (PubMed:<a href="http://www.uniprot.org/citations/11509594" target="\_blank">11509594</a>, PubMed:<a href="http://www.uniprot.org/citations/15383453" target="\_blank">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="http://www.uniprot.org/citations/19004835"



target=" blank">19004835</a>, PubMed:<a href="http://www.uniprot.org/citations/7691831" target="blank">7691831</a>, PubMed:<a href="http://www.uniprot.org/citations/8550562" target="blank">8550562</a>). Involved in signal transduction, cardiovascular homeostasis, inflammation, apoptosis, angiogenesis, cellular self-renewal, and immunoregulation (PubMed: <a href="http://www.uniprot.org/citations/11509594" target=" blank">11509594</a>, PubMed:<a href="http://www.uniprot.org/citations/15383453" target=" blank">15383453</a>, PubMed:<a href="http://www.uniprot.org/citations/19004835" target=" blank">19004835</a>, PubMed:<a href="http://www.uniprot.org/citations/27742621" target="blank">27742621</a>, PubMed:<a href="http://www.uniprot.org/citations/32679764" target="\_blank">32679764</a>, PubMed:<a href="http://www.uniprot.org/citations/7691831" target="\_blank">7691831</a>, PubMed:<a href="http://www.uniprot.org/citations/8550562" target="\_blank">8550562</a>). Plays a role in modulating pulmonary endothelin EDN1 signaling (PubMed: <a href="http://www.uniprot.org/citations/27742621" target=" blank">27742621</a>). 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:<a href="http://www.uniprot.org/citations/11509594" target=" blank">11509594</a>). Interaction with SIRPG mediates cell-cell adhesion, enhances superantigen-dependent T-cell-mediated proliferation and costimulates T-cell activation (PubMed:<a href="http://www.uniprot.org/citations/15383453" target=" blank">15383453</a>). 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:<a href="http://www.uniprot.org/citations/32679764" target="\_blank">32679764</a>). 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:<a href="http://www.uniprot.org/citations/7691831" target=" blank">7691831</a>). 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)

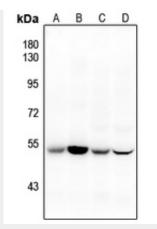
#### **Anti-CD47 Antibody - Protocols**

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

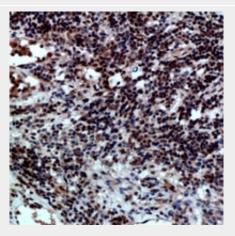
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

# Anti-CD47 Antibody - Images





Western blot analysis of CD47 expression in rat testis (A), mouse kindey (B), rat brain (C), mouse brain (D) whole cell lysates.



Immunohistochemical analysis of CD47 staining in human lymph node formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

# Anti-CD47 Antibody - Background

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human CD47. The exact sequence is proprietary.