

Product datasheet

Anti-CD47 antibody [EPR21794] ab218810

KO VALIDATED Recombinant RabMAB

★★★★★ 1 Abreviews 3 References 6 Images

Overview

Product name	Anti-CD47 antibody [EPR21794]
Description	Rabbit monoclonal [EPR21794] to CD47
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HEK-293T, Jurkat, U937, A549 and U-2 OS whole cell lysates. IHC-P: Human ovary carcinoma, liver and placenta tissues.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAB[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAB[®] patents.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	<p>pH: 7.2</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: PBS, 40% Glycerol, 0.05% BSA</p>
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR21794
Isotype	IgG

Applications

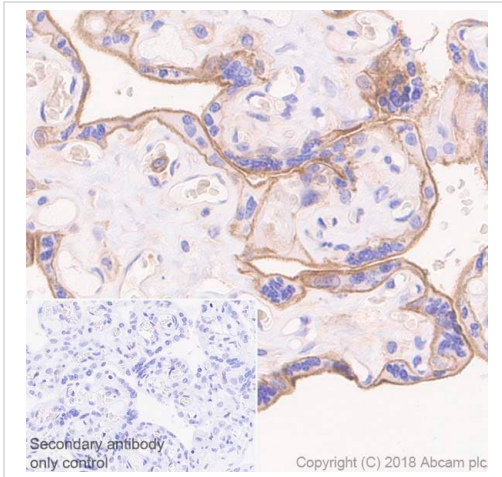
The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab218810 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000. Detects a band of approximately 47-52 kDa (predicted molecular weight: 35 kDa).
IHC-P	★★★★★ (1)	1/2000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Target

Function	Has a role in both cell adhesion by acting as an adhesion receptor for THBS1 on platelets, and in the modulation of integrins. 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. Interaction with SIRPG mediates cell-cell adhesion, enhances superantigen-dependent T-cell-mediated proliferation and costimulates T-cell activation. May play a role in membrane transport and/or integrin dependent signal transduction. May prevent premature elimination of red blood cells. May be involved in membrane permeability changes induced following virus infection.
Tissue specificity	Very broadly distributed on normal adult tissues, as well as ovarian tumors, being especially abundant in some epithelia and the brain.
Sequence similarities	Contains 1 Ig-like V-type (immunoglobulin-like) domain.
Cellular localization	Cell membrane.

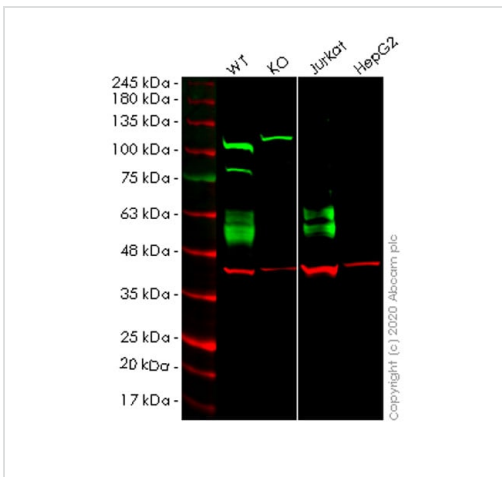
Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD47 antibody [EPR21794] (ab218810)

Immunohistochemical analysis of paraffin-embedded human placenta tissue labeling CD47 with ab218810 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Membranous staining on human placenta (PMID: 7998989). Counterstained with hematoxylin. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.



Western blot - Anti-CD47 antibody [EPR21794] (ab218810)

All lanes : Anti-CD47 antibody [EPR21794] (ab218810) at 1/500 dilution

Lane 1 : Wild-type HEK293T cell lysate

Lane 2 : CD47 knockout HEK293T cell lysate

Lane 3 : Jurkat cell lysate

Lane 4 : HepG2 cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) at 1/10000 dilution

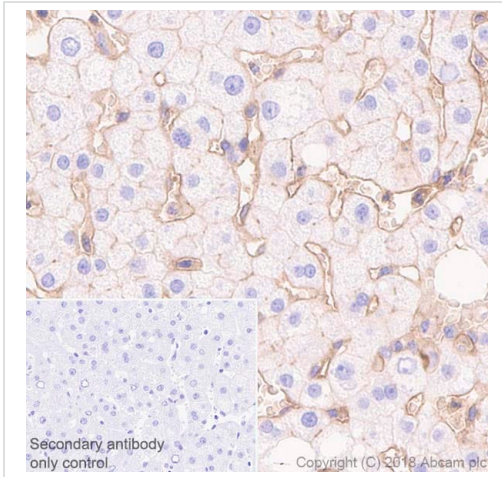
Predicted band size: 35 kDa

Observed band size: 47-52 kDa

Lanes 1-4: Merged signal (red and green). Green - ab218810 observed at 47-52 kDa. Red - loading control ab8245 observed at 36 kDa.

ab218810 Anti-CD47 antibody [EPR21794] was shown to specifically react with CD47 in wild-type HEK293T cells. Loss of signal was observed when knockout cell line ab266324 (knockout cell lysate ab257220) was used. Wild-type and CD47 knockout samples were subjected to SDS-PAGE. ab218810 and Anti-GAPDH antibody [6C5] - Loading Control (ab8245) were incubated

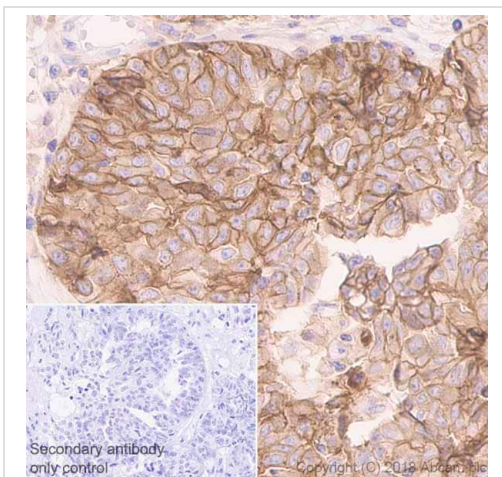
overnight at 4°C at 1 in 500 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed ([ab216776](#)) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD47 antibody [EPR21794] (ab218810)

Immunohistochemical analysis of paraffin-embedded human liver tissue labeling CD47 with ab218810 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Membranous and weak cytoplasmic staining on sinus of human liver sinusoidal endothelial cells (PMID: 7998989). Counterstained with hematoxylin. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

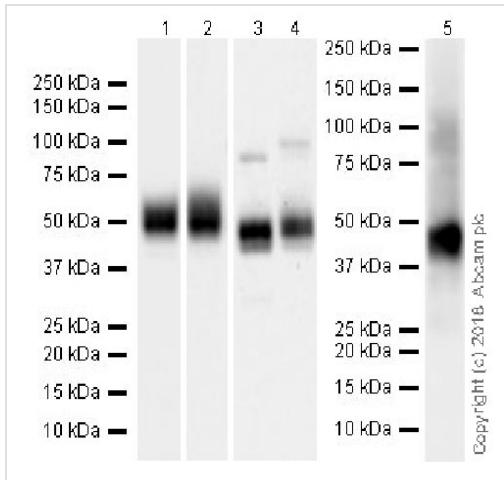
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD47 antibody [EPR21794] (ab218810)

Immunohistochemical analysis of paraffin-embedded human ovary carcinoma tissue labeling CD47 with ab218810 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Membranous and weakly cytoplasmic staining in human ovary carcinoma (PMID: 7998989). Counterstained with hematoxylin. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.



Western blot - Anti-CD47 antibody [EPR21794] (ab218810)

Lanes 1-4 : Anti-CD47 antibody [EPR21794] (ab218810) at 1/5000 dilution

Lane 5 : Anti-CD47 antibody [EPR21794] (ab218810) at 1/1000 dilution

Lane 1 : Jurkat (human T cell leukemia cell line from peripheral blood) whole cell lysate at 20 µg

Lane 2 : U937 (human histiocytic lymphoma cell line) whole cell lysate at 20 µg

Lane 3 : A549 (human lung carcinoma cell line) whole cell lysate at 20 µg

Lane 4 : U-2 OS (human bone osteosarcoma epithelial cell line) whole cell lysate at 20 µg

Lane 5 : Human brain lysate at 10 µg

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 35 kDa





Observed band size: 47-52 kDa

Exposure time: Lane 1: 26 seconds; Lane 2: 70 seconds; Lanes 3-4: 3 minutes; Lane 5: 3 seconds.

Blocking/Dilution buffer: 5% NFDM/TBST.

We recommend that samples are not boiled after adding loading buffer as this may cause protein aggregates. The molecular mass observed is consistent with the literature (PMID 12393467, PMID 11034562).

Why choose a recombinant antibody?

 Research with confidence Consistent and reproducible results	 Long-term and scalable supply Recombinant technology
 Success from the first experiment Confirmed specificity	 Ethical standards compliant Animal-free production

Anti-CD47 antibody [EPR21794] (ab218810)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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