abcam

Product datasheet

Anti-TLR9 antibody [EPR14964-2] ab187148

KO VALIDATED Recombinant RabMAb

5 Images

Overview

Product name	Anti-TLR9 antibody [EPR14964-2]
Description	Rabbit monoclonal [EPR14964-2] to TLR9
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P **Unsuitable for:** Flow Cyt (Intra) or ICC/IF
Species reactivity	**Reacts with:** Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Daudi, Raji and Ramos cell lysates. IHC-P: Human tonsil and breast carcinoma tissues.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

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	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR14964-2
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab187148 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 - 1/5000. Detects a band of approximately 130 kDa (predicted molecular weight: 116 kDa).
IHC-P		1/1000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Application notes Is unsuitable for Flow Cyt (Intra) or ICC/IF.

Target

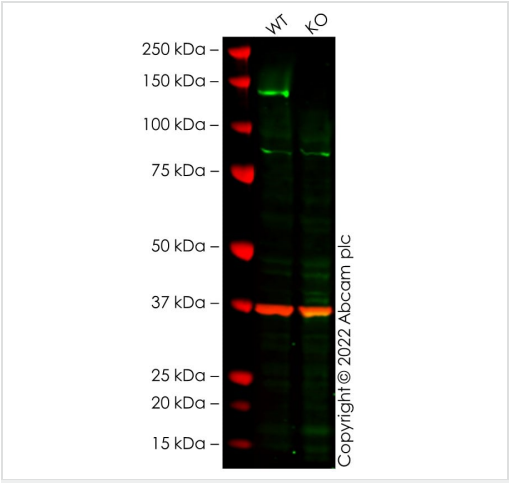
Function Key component of innate and adaptive immunity. TLRs (Toll-like receptors) control host immune response against pathogens through recognition of molecular patterns specific of microorganisms. TLR9 is a nucleotide-sensing TLR which is activated by unmethylated cytidine-phosphate-guanosine (CpG) dinucleotides. Acts via MYD88 and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response.

Tissue specificity Highly expressed in spleen, lymph node, tonsil and peripheral blood leukocytes, especially in plasmacytoid pre-dendritic cells. Levels are much lower in monocytes and CD11c+ immature dendritic cells. Also detected in lung and liver.

Sequence similarities Belongs to the Toll-like receptor family.
Contains 26 LRR (leucine-rich) repeats.
Contains 1 TIR domain.

Cellular localization Endoplasmic reticulum membrane. Endosome. Lysosome. Cytoplasmic vesicle > phagosome. Relocalizes from endoplasmic reticulum to endosome and lysosome upon stimulation with agonist.

Images



Western blot - Anti-TLR9 antibody [EPR14964-2] (ab187148)

All lanes : Anti-TLR9 antibody [EPR14964-2] (ab187148) at 1/1000 dilution

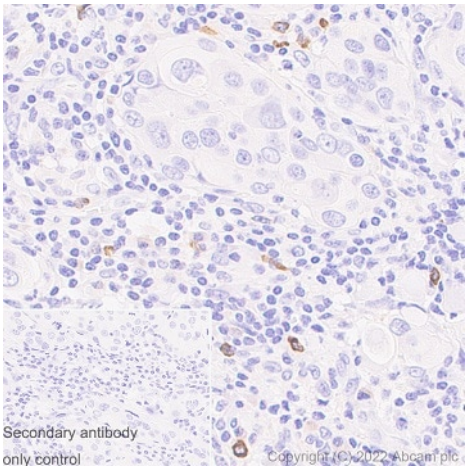
Lane 1 : Wild-type Raji cell lysate
Lane 2 : TLR9 knockout Raji cell lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

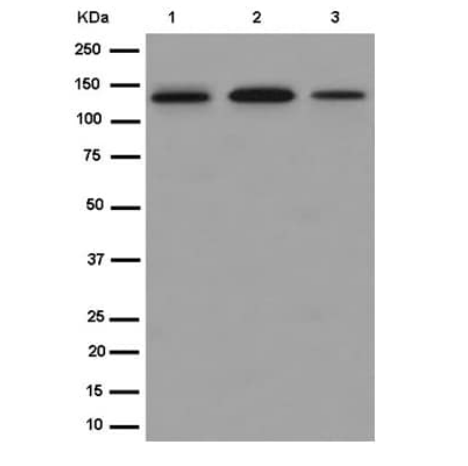
Predicted band size: 116 kDa
Observed band size: 140 kDa

False colour image of Western blot: Anti-TLR9 antibody [EPR14964-2] staining at 1/1000 dilution, shown in green; Mouse anti-GAPDH antibody [6C5] (**ab8245**) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab187148 was shown to bind specifically to TLR9. A band was observed at 140 kDa in wild-type Raji cell lysates with no signal observed at this size in TLR9 knockout cell line **ab280879** (knockout cell lysate **ab282939**). To generate this image, wild-type and TLR9 knockout Raji cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in fluorescent western blot (TBS-based) blocking solution before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TLR9 antibody [EPR14964-2] (ab187148)

Immunohistochemistry analysis of paraffin-embedded Human breast carcinoma tissue sections labelling TLR9 with ab187148 at 1/1000 dilution. The section was incubated with ab187148 for 30 mins at room temperature. Ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) was used as the secondary antibody. Sections were counterstained with Hematoxylin. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.
Positive staining on some immune stroma cells in human breast carcinoma tissue. The immunostaining was performed on a Leica Biosystems BOND® RX instrument.



Western blot - Anti-TLR9 antibody [EPR14964-2] (ab187148)

All lanes : Anti-TLR9 antibody [EPR14964-2] (ab187148) at 1/5000 dilution

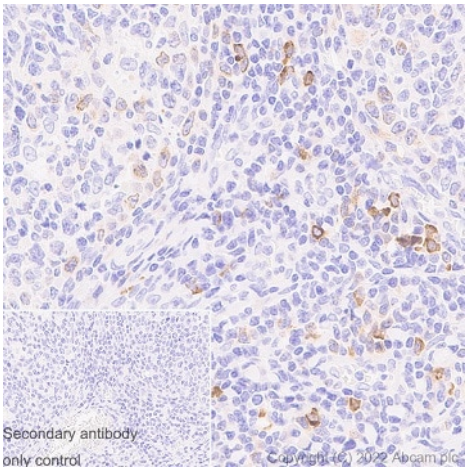
Lane 1 : Daudi cell lysate
Lane 2 : Raji cell lysate
Lane 3 : Ramos cell lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

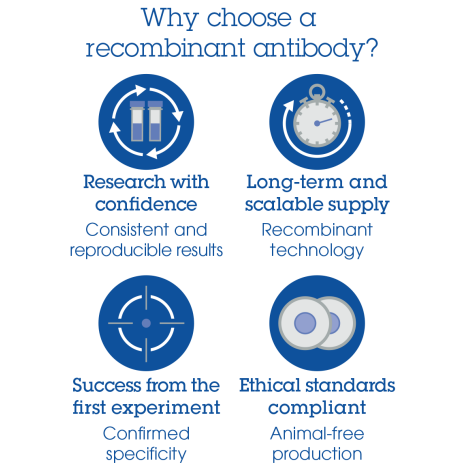
Predicted band size: 116 kDa

Blocking and dilution buffer: 5% NFDM/TBST



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TLR9 antibody [EPR14964-2] (ab187148)

Immunohistochemistry analysis of paraffin-embedded Human tonsil tissue sections labelling TLR9 with ab187148 at 1/1000 dilution. The section was incubated with ab187148 for 30 mins at room temperature. Ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) was used as the secondary antibody. Sections were counterstained with Hematoxylin. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.
Positive staining on some immune cells in human tonsil tissue. The immunostaining was performed on a Leica Biosystems BOND® RX instrument.



Anti-TLR9 antibody [EPR14964-2] (ab187148)

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.com/abpromise** or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors