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<br>**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:<br>- High batch-to-batch consistency and reproducibility<br>- Improved sensitivity and specificity<br>- Long-term security of supply<br>- Animal-free production<br>For more information **see here**.<br>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<br>Preservative: 0.01% Sodium azide<br>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

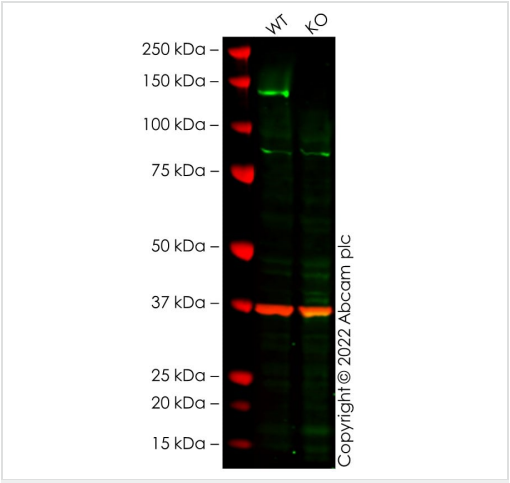
**Function** Key component of innate and adaptive immunity. TLRs (Toll-like receptors) control host immune response against pathogens through recognition of molecular patterns specific of microorganisms. TLR9 is a nucleotide-sensing TLR which is activated by unmethylated cytidine-phosphate-guanosine (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

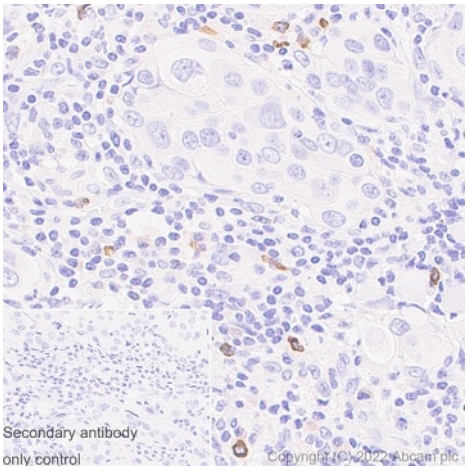
**Lane 1 :** Wild-type Raji cell lysate
**Lane 2 :** TLR9 knockout Raji cell lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

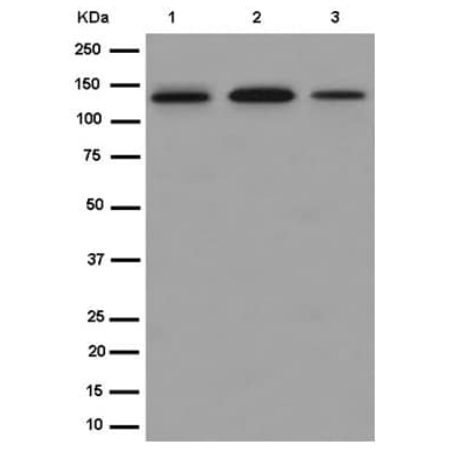
**Predicted band size:** 116 kDa
**Observed band size:** 140 kDa

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

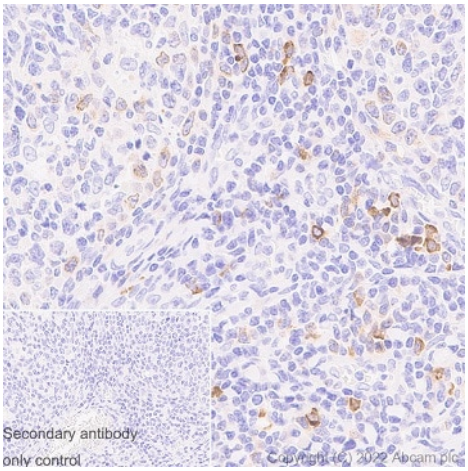
**Lane 1 :** Daudi cell lysate
**Lane 2 :** Raji cell lysate
**Lane 3 :** Ramos cell lysate

Lysates/proteins at 10 µg per lane.

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

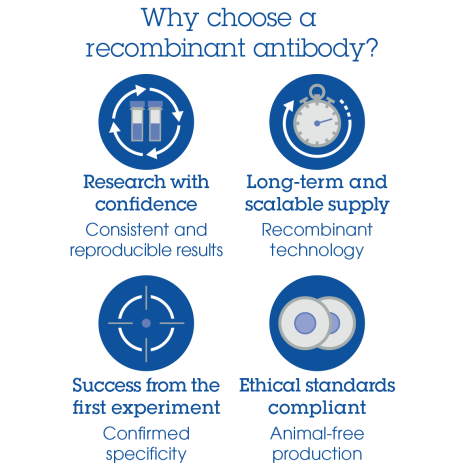
**Predicted band size:** 116 kDa

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)



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