abcam

Product datasheet

Anti-TLR9 antibody [EPR14964-2] - BSA and Azide free ab250911

KO VALIDATED Recombinant RabMAb

5 Images

Overview

Product name	Anti-TLR9 antibody [EPR14964-2] - BSA and Azide free
Description	Rabbit monoclonal [EPR14964-2] to TLR9 - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** IHC-P, WB **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	ab250911 is the carrier-free version of **ab187148**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc. 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. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Clonality	Monoclonal
Clone number	EPR14964-2
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab250911 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

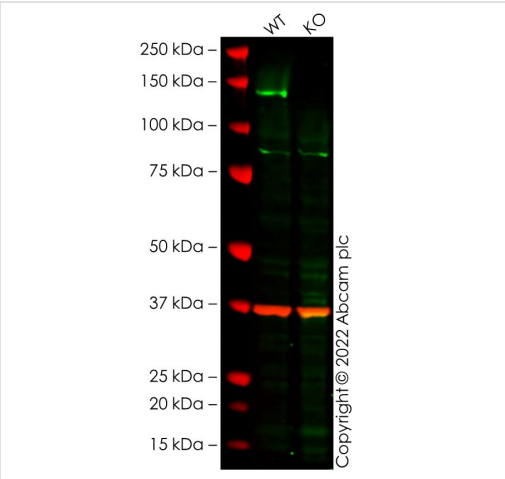
Application	Abreviews	Notes
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
WB		Use at an assay dependent concentration. Detects a band of approximately 130 kDa (predicted molecular weight: 116 kDa).

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] - BSA and Azide free (ab250911)

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

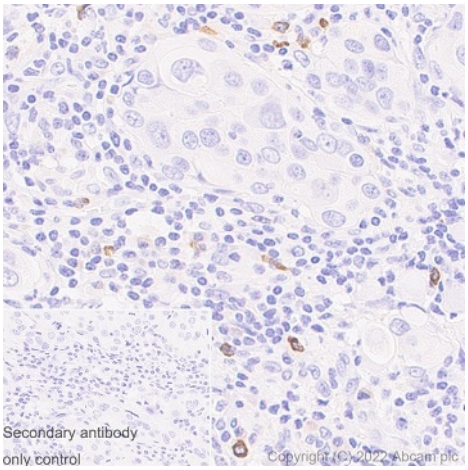
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

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

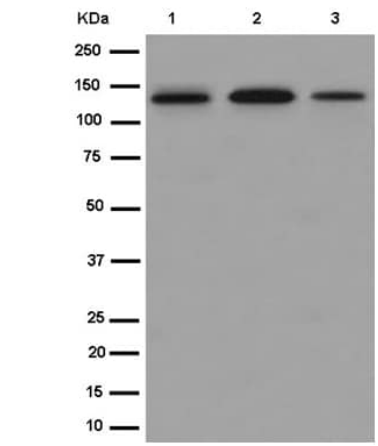
This data was developed using **ab187148**, the same antibody clone in a different buffer formulation.

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] - BSA and Azide free (ab250911)

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.
This data was developed using **ab187148**, the same antibody clone in a different buffer formulation.



Western blot - Anti-TLR9 antibody [EPR14964-2] - BSA and Azide free (ab250911)

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

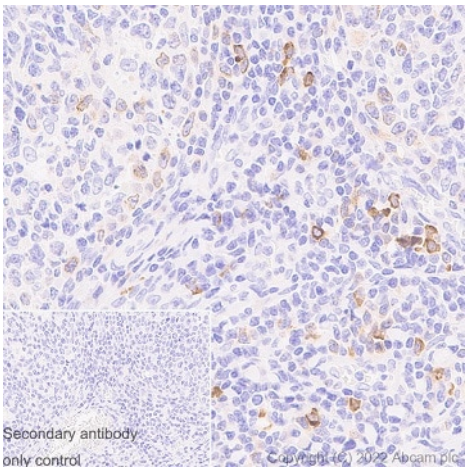
Lysates/proteins at 10 µg per lane.

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

Predicted band size: 116 kDa

This data was developed using **ab187148**, the same antibody clone in a different buffer formulation.

Blocking and dilution buffer: 5% NFDM/TBST.

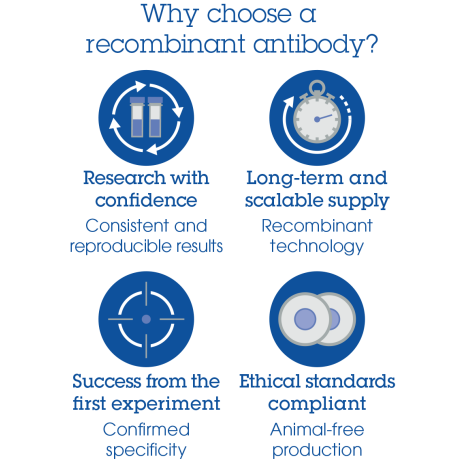


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TLR9 antibody [EPR14964-2] - BSA and Azide free (ab250911)

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.

This data was developed using **ab187148**, the same antibody clone in a different buffer formulation.



Anti-TLR9 antibody [EPR14964-2] - BSA and Azide free (ab250911)

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