abcam

Product datasheet

Anti-TLR4 antibody ab13556

19 Abreviews 229 References 7 Images

Overview

Product name	Anti-TLR4 antibody
Description	Rabbit polyclonal to TLR4
Host species	Rabbit
Specificity	TLR4 expression levels and cleavage or degradation products can vary between different cell and tissue samples. Customers have observed this variability in WB band size and our laboratory has confirmed this variability as well observing lower molecular weight cleavage and degradation products and in some samples a lack of the full length TLR4 band. The TLR4 cleavage and degradation products and potential lack of full length TLR4 are well documented in the literature, including PMID 16885150 and 22927440. We recommend running a positive control human intestine tissue lysate. We have obtained both positive and negative feedback from researchers using this antibody with rat samples (see Abreviews). Due to the inconsistency, we have removed rat as a guaranteed species and welcome any further feedback from researchers using this antibody.
Tested applications	**Suitable for:** WB, IHC-P, IHC-Fr, Flow Cyt
Species reactivity	**Reacts with:** Mouse, Human, Recombinant fragment
Immunogen	Synthetic peptide corresponding to Human TLR4 aa 420-435. Sequence: GLEQLEHLDFQ HSNLK Database link: O00206 Run BLAST with Run BLAST with
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

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 or -80°C. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.09% Sodium azide Constituents: PBS, 50% Glycerol (glycerin, glycerine)
Purity	Protein G purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our Abpromise guarantee covers the use of ab13556 in the following tested applications.

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

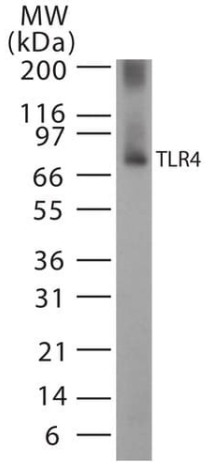
Application	Abreviews	Notes
WB	★★☆☆☆ (5)	1/500. Use primary at 1/500 dlution in 1xTBS. Incubate at 4C for 18 hours. Secondary should be incubated at 1 hour at room temperature.
IHC-P	★★★★★ (2)	Use at an assay dependent concentration.
IHC-Fr	★★★☆☆ (5)	Use at an assay dependent concentration.
Flow Cyt	★★★☆☆ (3)	Use at an assay dependent concentration. ab171870 - Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody.

Target

Function	Cooperates with LY96 and CD14 to mediate the innate immune response to bacterial lipopolysaccharide (LPS). Acts via MYD88, TIRAP and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response. Also involved in LPS-independent inflammatory responses triggered by Ni(2+). These responses require non-conserved histidines and are, therefore, species-specific.
Tissue specificity	Highly expressed in placenta, spleen and peripheral blood leukocytes. Detected in monocytes, macrophages, dendritic cells and several types of T-cells.
Involvement in disease	Genetic variation in TLR4 is associated with age-related macular degeneration type 10 (ARMD10) [MIM:611488]. ARMD is a multifactorial eye disease and the most common cause of irreversible vision loss in the developed world. In most patients, the disease is manifest as ophthalmoscopically visible yellowish accumulations of protein and lipid that lie beneath the retinal pigment epithelium and within an elastin-containing structure known as Bruch membrane.
Sequence similarities	Belongs to the Toll-like receptor family. Contains 18 LRR (leucine-rich) repeats. Contains 1 LRRCT domain. Contains 1 TIR domain.
Domain	The TIR domain mediates interaction with NOX4.

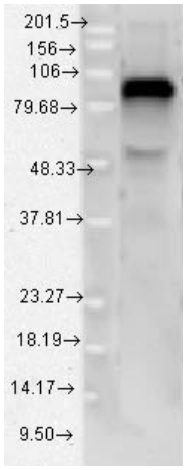
Post-translational modifications	N-glycosylated. Glycosylation of Asn-526 and Asn-575 seems to be necessary for the expression of TLR4 on the cell surface and the LPS-response. Likewise, mutants lacking two or more of the other N-glycosylation sites were deficient in interaction with LPS.
Cellular localization	Membrane.

Images



Western blot - Anti-TLR4 antibody (ab13556)

Anti-TLR4 antibody (ab13556) at 1/1000 dilution + partial recombinant mouse TLR4 protein, 100 ng



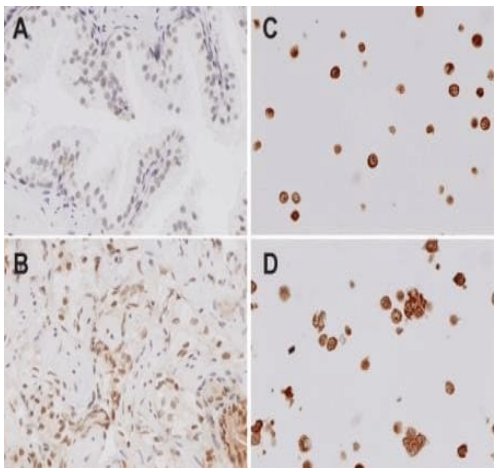
Western blot - Anti-TLR4 antibody (ab13556)

Anti-TLR4 antibody (ab13556) at 1/500 dilution + TLR4 transfected Baculovirus-Insect whole cell lysate at 10 µg

Secondary

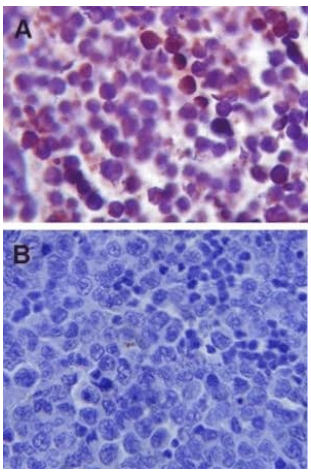
Anti-Rabbit HRP conjugate at 1/2000 dilution

Exposure time: 6 minutes



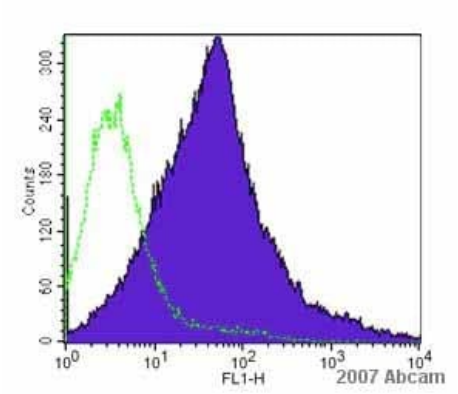
Immunohistochemistry (Frozen sections) - Anti-TLR4 antibody (ab13556)

ab13556 at a 1/100 dilution staining TLR4 in mouse spleen tissue section by Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TLR4 antibody (ab13556)

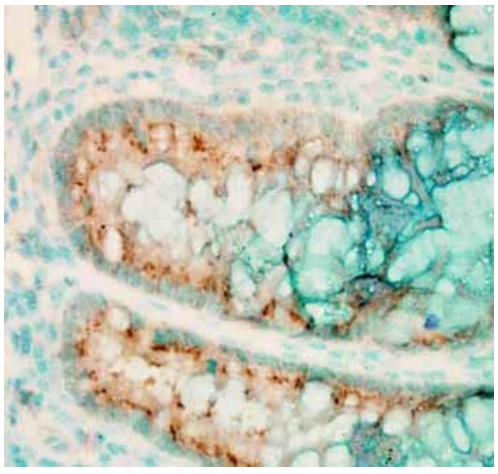
ab13556 at a 1/100 dilution staining TLR4 in mouse spleen tissue section by Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections).



Flow Cytometry - Anti-TLR4 antibody (ab13556)

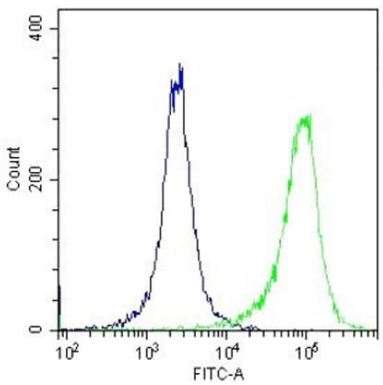
This image is courtesy of an Abreview submitted by Dr alexandre garin

ab13556 diluted 1/100 detecting TLR4 transfected mouse CHO cells by flow cytometry. The cells were prepared by treatment with collagenase and incubated with the primary antibody for 1 hour at 22°C. An Alexa Fluor® 488 goat anti-rabbit was used as the secondary antibody. Cells gated on live.



Immunohistochemistry (Frozen sections) - Anti-TLR4 antibody (ab13556)

ab13556 at 1/100000 dilution (12 hrs at 4degC) staining TLR4 in mouse colitis colon tissue section by Immunohistochemistry (Formalin-fixed tissue sections). A biotin Goat Anti-Rabbit secondary was used at 1/2000 for 1 hour at RT. Counterstain: Methyl Green at 200µL for 2 mins at RT. Localization: Inflammatory cells.



Flow Cytometry - Anti-TLR4 antibody (ab13556)

Flow cytometry analysis of THP-1 (Human monocytic leukemia cell line). Cells were fixed with 2% formaldehyde for 10 minutes at room temperature. ab13556 was used at 2 µg/10^6 cells for 60 minutes at 37°C (green). Goat Anti- Rabbit Dylight 488 was used as a secondary antibody at 1/200 dilution for 40 minutes at 37°C. Isotype control was Rabbit IgG under the same conditions (blue).

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