

Product datasheet

Anti-TLR3 antibody [40C1285] ab13915

★★★★★ [3 Abreviews](#) [24 References](#) [8 Images](#)

Overview

Product name	Anti-TLR3 antibody [40C1285]
Description	Mouse monoclonal [40C1285] to TLR3
Host species	Mouse
Specificity	Negative results in WB have been obtained for mouse intestine lysates (human intestine is a positive control). The protein is heavily glycosylated and the observed band size should be higher than the predicted 103kDa. The protein is found at different molecular weight in different tissues so optimization may be necessary.
Tested applications	Suitable for: IHC-P, Flow Cyt (Intra), WB
Species reactivity	Reacts with: Mouse, Human
Immunogen	Synthetic peptide corresponding to Human TLR3 aa 50-150 conjugated to keyhole limpet haemocyanin. Database link: O15455 Run BLAST with Run BLAST with
Positive control	Human intestine tissue lysate, mouse spleen Flow Cyt (Intra): human B cells, human monocytes, SW480, SW620 (colon cancer)
General notes	<p>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.</p> <p>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</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 or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.4 Preservative: 0.05% Sodium azide Constituents: PBS, 0.05% BSA

Purity	Protein G purified
Clonality	Monoclonal
Clone number	40C1285
Isotype	IgG1

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab13915 in the following tested applications.

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

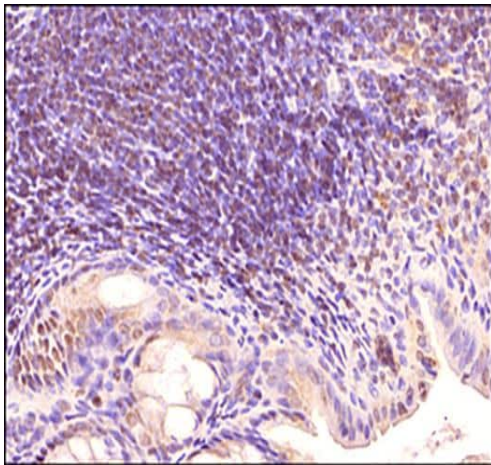
Application	Abreviews	Notes
IHC-P		Use a concentration of 5 - 10 µg/ml. Permeabilization of samples might be necessary and overnight incubation with the ab13915 is recommended.
Flow Cyt (Intra)		Use 2-5µg for 10 ⁶ cells. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
WB	★★★★☆ (1)	Use a concentration of 1 - 3 µg/ml. Detects a band of approximately 130 kDa (predicted molecular weight: 108 kDa). TLR3 is a single-pass type I membrane protein. We recomend not to boil the samples, instead heat lysates at 60-70C for 10 minutes.

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. TLR3 is a nucleotide-sensing TLR which is activated by double-stranded RNA, a sign of viral infection. Acts via MYD88 and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response.
Tissue specificity	Expressed at high level in placenta and pancreas. Also detected in CD11c+ immature dendritic cells. Only expressed in dendritic cells and not in other leukocytes, including monocyte precursors. TLR3 is the TLR that is expressed most strongly in the brain, especially in astrocytes, glia, and neurons.
Involvement in disease	Defects in TLR3 are associated with herpes simplex encephalitis type 2 (HSE2) [MIM:613002]. HSE is a rare complication of human herpesvirus 1 (HHV-1) infection, occurring in only a small minority of HHV-1 infected individuals. HSE is characterized by hemorrhagic necrosis of parts of the temporal and frontal lobes. Onset is over several days and involves fever, headache, seizures, stupor, and often coma, frequently with a fatal outcome. Note=TLR3 mutations predispose otherwise healthy individuals to isolated herpes simplex encephalitis through a mechanism that involves impaired IFNs production and reduced immune defense against viral infection in the central nervous system.
Sequence similarities	Belongs to the Toll-like receptor family. Contains 22 LRR (leucine-rich) repeats. Contains 1 LRRCT domain.

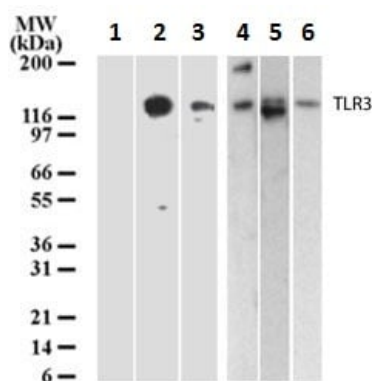
	Contains 1 LRRNT domain.
	Contains 1 TIR domain.
Domain	ds-RNA binding is mediated by LRR 1 to 3, and LRR 17 to 18.
Post-translational modifications	Heavily N-glycosylated, except on that part of the surface of the ectodomain that is involved in ligand binding.
Cellular localization	Endoplasmic reticulum membrane. Endosome membrane.

Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TLR3 antibody [40C1285] (ab13915)

Immunohistochemical analysis of formalin fixed paraffin embedded tissue section of mouse intestine using ab13915 at 1/500 dilution with HRP-DAB detection and hematoxylin counterstaining. The image shows a punctate staining of the ER and endosomes in a subset of cells in Peyer's patches (organized lymphoid nodules) in the tested section.



Western blot - Anti-TLR3 antibody [40C1285] (ab13915)

All lanes : Anti-TLR3 antibody [40C1285] (ab13915) at 3 µg/ml

Lane 1 : Untransfected HEK293 cell lysate

Lane 2 : HEK293 cell lysate transfected with human TLR3 cDNA whole cell lysate

Lane 3 : Human intestine tissue lysate

Lane 4 : Human placenta tissue lysate

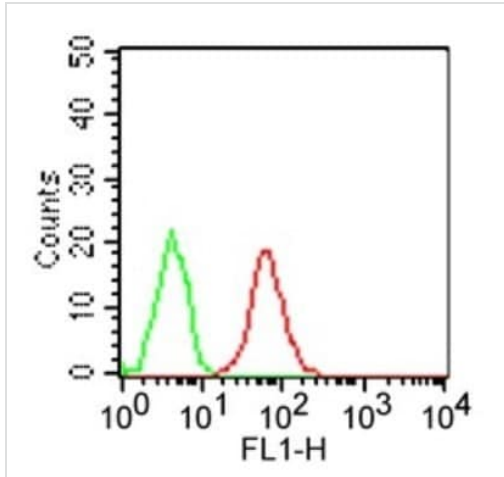
Lane 5 : Human heart tissue lysate

Lane 6 : Human ovary tissue lysate

Secondary

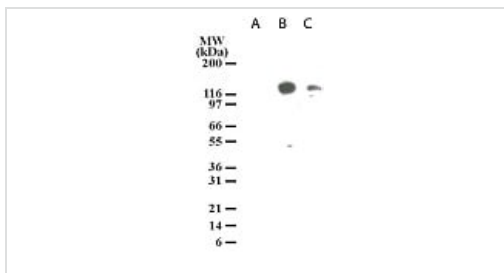
All lanes : Goat anti-mouse HRP conjugate

Predicted band size: 108 kDa



Flow cytometry (Intracellular) analysis of human B cells using ab13915 at $1\mu\text{g}/10^6$ cells followed by FITC conjugated secondary antibody (Red). Green shows isotype control.

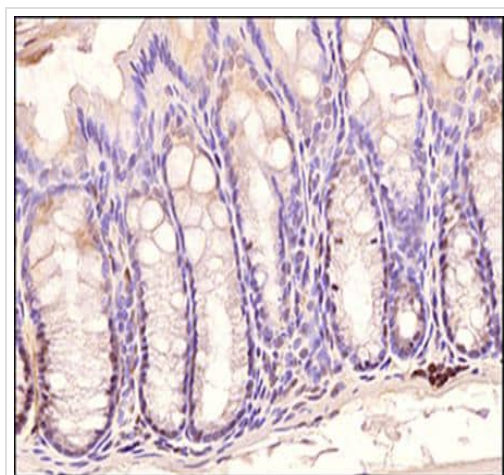
Flow Cytometry (Intracellular) - Anti-TLR3 antibody [40C1285] (ab13915)



Western blot analysis of TLR3 in lysates from untransfected 293 cells (lane A), 293 cells transfected with human TLR3 cDNA (lane B), and 20 $\mu\text{g}/\text{lane}$ human intestine tissue lysate (lane C).

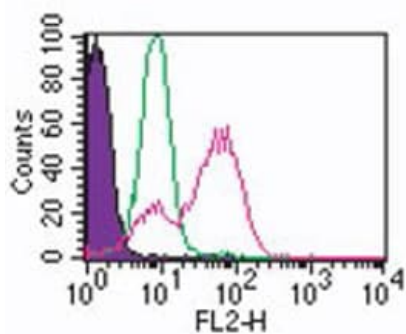
Western blot analysis of TLR3 in lysates from untransfected 293 cells (lane A), 293 cells transfected with human TLR3 cDNA (lane B), and 20 $\mu\text{g}/\text{lane}$ human intestine tissue lysate (lane C).

Western blot - Anti-TLR3 antibody [40C1285] (ab13915)



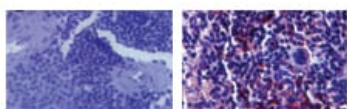
Immunohistochemical analysis of formalin fixed paraffin embedded tissue section of mouse colon using ab13915 at 1/500 dilution with HRP-DAB detection and hematoxylin counterstaining. Intense signal was found in subset of cells at the bases of the crypts.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TLR3 antibody [40C1285] (ab13915)



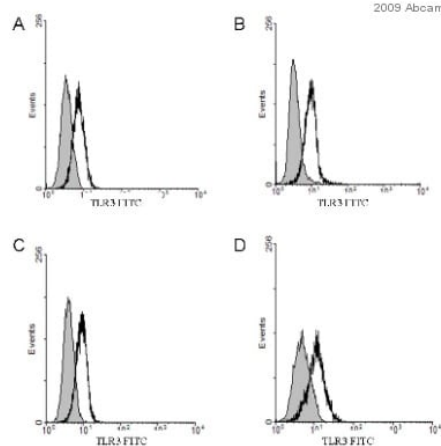
Flow Cytometry (Intracellular) - Anti-TLR3 antibody
[40C1285] (ab13915)

ab13915 at 2 μ g / 1x10⁶ cells staining intracellular TLR3 in human monocytes by Flow Cyt (Intra). A PE-conjugated goat polyclonal to mouse IgG1 was used as secondary. The shaded histogram represents monocytes without antibody; green represents isotype control and red histogram shows staining with ab13915.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TLR3 antibody [40C1285] (ab13915)

ab13915 at 5 μ g/ml staining TLR3 in mouse spleen tissue section by Immunohistochemistry (Formalin/ PFA fixed paraffin-embedded sections). The left image represents staining with isotype control and right one represents staining with ab13915.



Flow Cytometry (Intracellular) - Anti-TLR3 antibody
[40C1285] (ab13915)

This image is a courtesy of Tanja Matijevic

ab13915 staining TLR3 in SW480, SW620 (colon cancer) and FaDu, Detroit 562 obtained from human cells by Flow Cytometry. Samples were prepared by trypsinizing and washing in PBS and centrifugation in a buffer containing 2% FBS, 0.1% Na-azide and PBS. Cells were fixed in paraformaldehyde and permeabilized in 0.2% Tween. Gating and analysis was performed by WinMDI 2.9 software. The primary antibody was diluted to 1 μ g/cells (PBS, 2% FBS and 0.1% Na-azide) and incubated with sample for 30 minutes at 4°C. An FITC conjugated rabbit polyclonal to mouse IgG, diluted to 1/40, was used as secondary. Image represents FACS analysis of TLR3 protein expression in SW480 (A), SW620 (B), FaDu (C) and Detroit 562 (D) cell lines. Cell lines were permeabilized and immunostained with TLR3-specific antibody (thick black l

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

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