abcam

ab239857

Anti-TIL/TLR1 antibody [EPR2075] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR2075
Purification technique	Affinity purification Protein A
Concentration	1.039 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Not recommended

Species	Human
Dilution info	-

Notes	-

IP

Tested

Species	Human
Dilution info	-
Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	-
Notes	ab199376 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

WB

Tested

Species	Human
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human
Dilution info	-
Notes	-

Target data

See full target information TLR1

Function	Participates in the innate immune response to microbial agents. Specifically recognizes diacylated and triacylated lipopeptides. Cooperates with TLR2 to mediate the innate immune response to bacterial lipoproteins or lipopeptides (PubMed:21078852). Forms the activation cluster TLR2:TLR1:CD14 in response to triacylated lipopeptides, this cluster triggers signaling from the cell surface and subsequently is targeted to the Golgi in a lipid-raft dependent pathway (PubMed:16880211). Acts via MYD88 and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab239857 is the carrier-free version of ab68158.

Species reactivity
Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
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 batch production

For more information, read more on recombinant antibodies.

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. 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.

Compatibility
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.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Toll-like receptor 1 (TLR1) also known as TIL plays a significant role in the immune system. It is a pattern recognition receptor that detects pathogen-associated molecular patterns (PAMPs). TLR1 has a molecular weight of approximately 90 kilodaltons. It is expressed on the surface of various immune cells including monocytes macrophages and dendritic cells. TLR1 recognizes triacylated lipopeptides in combination with TLR2 forming a heterodimer that is essential for signaling. This interaction enhances the immune response against microbial infections.
Biological function summary	TLR1 contributes to the immune response by participating in the detection of bacterial lipoproteins. This receptor is a part of the Toll-like receptor family which plays an essential role in innate immunity. TLR1 often in complex with TLR2 helps in recognizing and responding to the structural motifs of microbial pathogens. These interactions lead to the activation of downstream signaling pathways triggering the production of cytokines and other mediators essential for inflammatory responses.
Pathways	TLR1 is involved in the Toll-like receptor signaling pathway and the NF-kB signaling pathway. In the Toll-like receptor pathway TLR1-TLR2 heterodimers signal through adaptor proteins like MyD88 which leads to the activation of transcription factors such as NF-kB. This mechanism regulates the expression of genes involved in immune and inflammatory responses. TLR1 coordinates with TLR2 not just in recognition of ligands but also in the signaling to produce a coordinated immune response enhancing the cell's ability to deal with infections.
Associated diseases and disorders	TLR1 plays a role in conditions involving immune dysregulation such as tuberculosis and sepsis. Genetic variations in TLR1 can impact susceptibility to these diseases by altering the receptor's ability to recognize pathogenic components. TLR1's interaction with TLR2 influences the inflammatory response and may contribute to inappropriate immune activation seen in sepsis. These receptors' roles in inflammation and pathogen recognition highlight their importance in understanding the development and progression of immune-related diseases.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

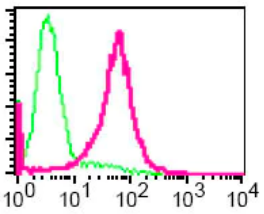
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

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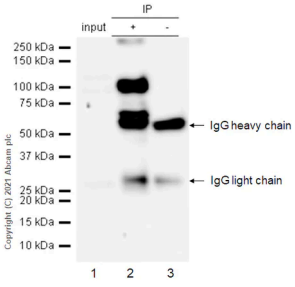
3 product images



Flow Cytometry - Anti-TIL/TLR1 antibody [EPR2075] - BSA and Azide free (ab239857)

TIL/TLR1 Flow Cytometry staining using rabbit Anti-TIL/TLR1 antibody

Flow cytometric analysis of TIL/TLR1 in Daudi cells using ab68158 at 1/60 dilution (pink) or a rabbit IgG (green).
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab68158).



Immunoprecipitation - Anti-TIL/TLR1 antibody [EPR2075] - BSA and Azide free (ab239857)

This data was developed using ab68158, the same antibody clone in a different buffer formulation. TIL/TLR1 was immunoprecipitated from 0.35 mg Ramos (Human Burkitt's lymphoma B lymphocyte) whole cell lysate 10 µg with ab68158 at 1/50 dilution (2µg). VeriBlot for IP Detection Reagent (HRP) (ab131366) was used at 1/5000 dilution.

Lane 1: Ramos (Human Burkitt's lymphoma B lymphocyte) whole cell lysate 10 µg

Lane 2: ab68158 IP in Ramos whole cell lysate

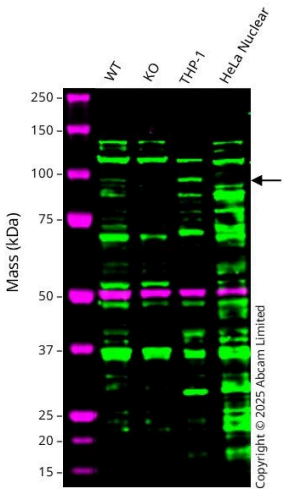
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab68158 in Ramos whole cell lysate

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

All lanes:
Immunoprecipitation - Anti-TIL/TLR1 antibody [EPR2075] (ab68158)

Predicted band size: 90 kDa

Observed band size: 90-125 kDa



Western blot - Anti-TIL/TLR1 antibody [EPR2075] - BSA and Azide free (ab239857)

TIL/TLR1 Western blot staining using rabbit Anti-TIL/TLR1 antibody

This data was developed using ab68158, the same antibody clone in a different buffer formulation. Western blot: Rabbit Monoclonal [EPR2075] to TIL/TLR1 ab68158 staining at 1/1000 dilution, shown in green; Mouse anti alpha Tubulin (ab7291) loading control staining at 1/20,000 dilution, shown in magenta.

A band was observed at 99 kDa in Wild-type A549 cell lysates with no signal observed at this size in TLR1 knockout A549 cell line.

To generate this image, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3pc Milk in TBS-0.1 % Tween® 20 (TBS-T) 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 800CW & Goat anti-Mouse 680RD at 1/20,000 dilution.

All lanes:
Western blot - Anti-TIL/TLR1 antibody [EPR2075] (ab68158) at 1/1000 dilution

Lane 1:
Wild-type A549 at 20 µg

Lane 2:
TLR1 knockout A549 at 20 µg

Lane 2:
Western blot - Human TLR1 knockout A549 cell line (ab289019) at 20 µg

Lane 3:
THP-1 at 20 µg

Lane 4:
HeLa Nuclear at 20 µg

Secondary

All lanes:
Goat anti-Rabbit 800CW & Goat anti-Mouse 680RD at 1/20000 dilution

Performed under reducing conditions.

Predicted band size: 90 kDa

Observed band size: 99 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.