abcam

ab281567

Anti-TLR3 antibody [EPR24454-103] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR24454-103
Purification technique	Affinity purification Protein A
Concentration	1.006 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Not recommended

Species	Human, Mouse, Rat
Dilution info	-

Notes	-

IP

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

WB

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-

Notes	-

Target data

See full target information TLR3

Function	Key component of innate and adaptive immunity. TLRs (Toll-like receptors) control host immune response against pathogens through recognition of molecular patterns specific to microorganisms. TLR3 is a nucleotide-sensing TLR which is activated by double-stranded RNA, a sign of viral infection. Acts via the adapter TRIF/TICAM1, leading to NF-kappa-B activation, IRF3 nuclear translocation, 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

Notes

ab281567 is the carrier-free version of ab281560.

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	TLR3 also known as Toll-like receptor 3 is a protein that plays an important role in immune response mechanisms. With a molecular mass of around 104 kDa TLR3 is part of the Toll-like receptor family and expresses mostly in immune cells including dendritic cells and macrophages. It locates mainly on the endosomal membrane where it recognizes double-stranded RNA (dsRNA) which is often a sign of viral infection. TLR3 initiates signaling cascades that lead to the activation of important immune transcription factors.
Biological function summary	TLR3 acts as a sensor for viral and endogenous dsRNA. This receptor forms part of the innate immune system serving as a first line of defense against microbial infections. Upon encountering its ligand TLR3 undergoes conformational changes which allow interaction with the adaptor protein TRIF (TIR-domain-containing adapter-inducing interferon-β). This interaction triggers a downstream signaling cascade that leads to the production of type I interferons and pro-inflammatory cytokines which are essential for mounting an effective antiviral response.
Pathways	TLR3 engages in important signaling cascades like the NF-kB and IRF3 pathways. These pathways are activated by the TRIF-dependent pathway which is unique among the Toll-like receptors. TLR3 influences the expression of genes involved in the inflammatory response and apoptosis. The interactions of TLR3 with other proteins such as MyD88 and IRAK1 are indirect as TLR3 does not depend on the usual MyD88-dependent pathway. This specificity makes TLR3 a critical component in pathogen recognition and response strategies within the immune system.
Associated diseases and disorders	TLR3 has connections with several conditions primarily viral infections and autoimmune disorders like systemic lupus erythematosus (SLE). Mutations or dysregulation of TLR3 may lead to altered immune responses contributing to the pathogenesis of these diseases. TLR3's association with proteins like TRIF and IRF3 is significant in understanding its role in these conditions. Ongoing research investigates TLR3's potential as a therapeutic target to modulate immune responses in disease states.

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.

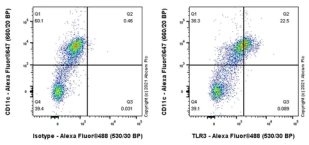
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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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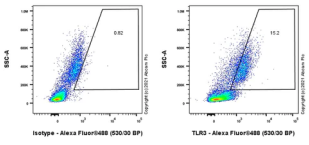
2 product images



Flow Cytometry (Intracellular) - Anti-TLR3 antibody [EPR24454-103] - BSA and Azide free (ab281567)

TLR3 Flow Cytometry (Intracellular) staining using rabbit Anti-TLR3 antibody

This data was developed using ab281560, the same antibody clone in a different buffer formulation.Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized Human peripheral blood mononuclear cell (PBMC) treated with 100ng/ml GM-CSF and 50ng/ml IL-4 for 6 days cells labelling TLR3 with ab281560 at 1/500 dilution (0.1ug)/ Right (Red) compared with a Rabbit monoclonal IgG (ab172730) / Left isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody. Cells were stained with anti-CD11c conjugated to Alexa Fluor® 647 and anti-HLA-DR conjugated to PE, then stained with rabbit IgG or ab281560.Gated on HLA-DR+ population.



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