abcam

ab12085

Anti-TLR3 antibody [TLR3.7]

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	Constituents: PBS, 0.1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Full Length Protein corresponding to Human TLR3. Database link O15455
Clone number	TLR3.7
Purification technique	Affinity purification Protein G
Concentration	0.1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	0.2 µm filtered

Reactivity data

WB

Not recommended

Species	Human, Mouse, Dog
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/10
Notes	See paper by Matsumoto et al, 2003. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody

Predicted

Species	Mouse, Dog
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	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

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

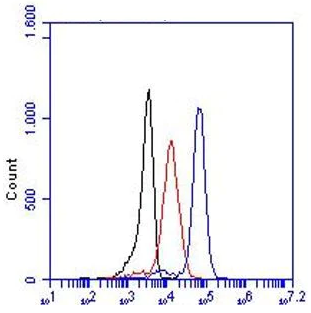
We do not recommend this combination. It is not covered by our product promise.

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.

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1 product image



Flow Cytometry (Intracellular) - Anti-TLR3 antibody [TLR3.7] (ab12085)

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

Flow cytometric detection of human TLR3 on THP-1 cells. Red line represents the isotype control and the black line represents ab12085 at 10 µg/ml.

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