abcam

ab228424

Anti-TLR6 antibody [ABM1B50]

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	Preservative: 0.05% Sodium azide Constituents: PBS, 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Fragment Protein within Human TLR6 aa 250 to C-terminus. The exact immunogen used to generate this antibody is proprietary information. Database link Q9Y2C9
Clone number	ABM1B50
Purification technique	Affinity purification Protein G
Light chain type	kappa
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	0.5-1 µg for 10^6 Cells
Notes	-

WB

Tested

Species	Human
Dilution info	2-4 µg/mL
Notes	-

Target data

See full target information TLR6

Function

Participates in the innate immune response to Gram-positive bacteria and fungi. Specifically recognizes diacylated and, to a lesser extent, triacylated lipopeptides (PubMed:20037584). In response to diacylated lipopeptides, forms the activation cluster TLR2:TLR6:CD14:CD36, 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. Recognizes mycoplasmal macrophage-activating lipopeptide-2kD (MALP-2), soluble tuberculosis factor (STF), phenol-soluble modulin (PSM) and B.burgdorferi outer surface protein A lipoprotein (OspA-L) cooperatively with TLR2 (PubMed:11441107). In complex with TLR4, promotes sterile inflammation in monocytes/macrophages in response to oxidized low-density lipoprotein (oxLDL) or amyloid-beta 42. In this context, the initial signal is provided by oxLDL- or amyloid-beta 42-binding to CD36. This event induces the formation of a heterodimer of TLR4 and TLR6, which is rapidly internalized and triggers inflammatory response, leading to the NF-kappa-B-dependent production of CXCL1, CXCL2 and CCL9 cytokines, via MYD88 signaling pathway, and CCL5 cytokine, via TICAM1 signaling pathway, as well as IL1B secretion (PubMed:11441107, PubMed:20037584).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
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	Toll-like receptor 6 (TLR6) acts as an important component of the innate immune system. TLR6 is alternatively known as CD286 and has an approximate molecular mass of 91 kDa. This protein is predominantly expressed in immune cells such as monocytes dendritic cells and macrophages. It localizes mainly on the cell surface and is involved in recognizing pathogen-associated molecular patterns specifically diacyl lipopeptides and peptidoglycans.
Biological function summary	TLR6 plays a role in pathogen recognition and activation of inflammatory responses. It often forms a functional heterodimer with TLR2 a necessity for its function. Through this complex TLR6 mediates the recognition of bacterial lipoproteins and triggers downstream signaling involved in immune cell activation and cytokine production. This signaling increases the host's immune response to bacterial infections by promoting the release of pro-inflammatory cytokines.
Pathways	TLR6 initiates signaling cascades that are significant in the immune system such as the NF-kB and MAPK pathways. TLR6 partners with TLR2 to activate the MyD88-dependent signaling pathway an important pathway in innate immunity that affects transcription of pro-inflammatory genes. Interaction with these pathways involves proteins like MyD88 and TRAF6 which are central components in signal transduction leading to inflammation and antimicrobial responses.
Associated diseases and disorders	TLR6 contributes to the pathogenesis of inflammatory and autoimmune diseases. Research indicates its association with conditions like rheumatoid arthritis and asthma where it influences inflammation levels and immune system dysregulation. TLR6 through its interaction with TLR2 affects the differentiation and activation of immune cells leading to overactive immune responses observed in these disorders. Its role in inflammation makes it a potential target for therapeutic intervention in diseases related to immune system dysfunction.

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.

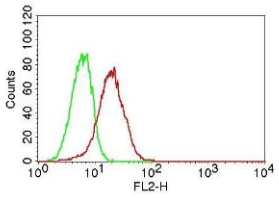
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

---

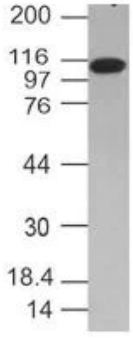
2 product images



Flow Cytometry - Anti-TLR6 antibody [ABM1B50] (ab228424)

TLR6 Flow Cytometry staining using mouse Anti-TLR6 antibody

Flow cytometric analysis of Jurkat (human T cell leukemia cell line from peripheral blood) cell line labeling TLR6 with ab228424 at 0.5 µg/10^6 cells (red) compared with an isotype control of rabbit IgG (green). Goat anti-Mouse PE conjugate was used as secondary antibody.



Western blot - Anti-TLR6 antibody [ABM1B50] (ab228424)

All lanes:
Western blot - Anti-TLR6 antibody [ABM1B50] (ab228424) at 2 µg/mL

All lanes:
Jurkat (human T cell leukemia cell line from peripheral blood) cell lysate

Predicted band size: 92 kDa

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