

Product Name: TLR2 (15K3) Rabbit Monoclonal Antibody
Catalog #: AMRe18986

Summary

Production Name	TLR2 (15K3) Rabbit Monoclonal Antibody
Description	Rabbit Monoclonal Antibody
Host	Rabbit
Application	WB,ICC/IF
Reactivity	Human

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Monoclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles. Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% New type
Buffer	preservative N and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.
Purification	Affinity purification

Immunogen

Gene Name	TLR2
Alternative Names	TLR2;CD282;TIL4;Toll-like receptor 2;Toll/interleukin-1 receptor-like protein 4;
Gene ID	7097.0
SwissProt ID	O60603.

Application

Dilution Ratio	WB 1:1000, ICC/IF 1:50
Molecular Weight	90kDa

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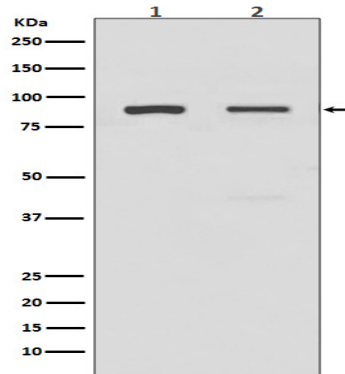
Background

Members of the Toll-like receptor (TLR) family, named for the closely related Toll receptor in *Drosophila*, play a pivotal role in innate immune responses (1-3). TLRs recognize conserved motifs found in various pathogens and mediate defense responses. Triggering of the TLR pathway leads to the activation of NF- κ B and subsequent regulation of immune and inflammatory genes. Cooperates with LY96 to mediate the innate immune response to bacterial lipoproteins and other microbial cell wall components. Cooperates with TLR1 or TLR6 to mediate the innate immune response to bacterial lipoproteins or lipopeptides (PubMed: [21078852](http://www.uniprot.org/citations/21078852), PubMed: [17889651](http://www.uniprot.org/citations/17889651)). Acts via MYD88 and TRAF6, leading to NF- κ -B activation, cytokine secretion and the inflammatory response. May also activate immune cells and promote apoptosis in response to the lipid moiety of lipoproteins (PubMed: [10426995](http://www.uniprot.org/citations/10426995), PubMed: [10426996](http://www.uniprot.org/citations/10426996)). 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 TLR6 (PubMed: [11441107](http://www.uniprot.org/citations/11441107)). Stimulation of monocytes in vitro with *M.tuberculosis* PstS1 induces p38 MAPK and ERK1/2 activation primarily via this receptor, but also partially via TLR4 (PubMed: [16622205](http://www.uniprot.org/citations/16622205)). MAPK activation in response to bacterial peptidoglycan also occurs via this receptor (PubMed: [16622205](http://www.uniprot.org/citations/16622205)). Acts as a receptor for *M.tuberculosis* lipoproteins LprA, LprG, LpqH and PstS1, some lipoproteins are dependent on other coreceptors (TLR1, CD14 and/or CD36); the lipoproteins act as agonists to modulate antigen presenting cell functions in response to the pathogen (PubMed: [19362712](http://www.uniprot.org/citations/19362712)). *M.tuberculosis* HSP70 (dnaK) but not HSP65 (groEL-2) acts via this protein to stimulate NF- κ -B expression (PubMed: [15809303](http://www.uniprot.org/citations/15809303)). Recognizes *M.tuberculosis* major T-antigen EsxA (ESAT-6) which inhibits downstream MYD88-dependent signaling (shown in mouse) (By similarity). Forms activation clusters composed of several receptors depending on the ligand, these clusters trigger signaling from the cell surface and subsequently are targeted to the Golgi in a lipid-raft dependent pathway. Forms the cluster TLR2:TLR6:CD14:CD36 in response to diacylated lipopeptides and TLR2:TLR1:CD14 in response to triacylated lipopeptides (PubMed: [16880211](http://www.uniprot.org/citations/16880211)). Required for normal uptake of *M.tuberculosis*, a process that is inhibited by *M.tuberculosis* LppM (By similarity).

Research Area

Image Data

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Western blot analysis of TLR2 expression in (1) A549 cell lysate; (2) HeLa cell lysate.

Note

For research use only.