

# Mouse TLR2 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP1502c

## Product Information

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<b>Application</b>	WB, IHC-P-Leica
<b>Primary Accession</b>	<a href="#">Q9QUN7</a>
<b>Reactivity</b>	Mouse
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	Rabbit Ig
<b>Clone Names</b>	RB2603
<b>Calculated MW</b>	89449

## Additional Information

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<b>Gene ID</b>	24088
<b>Other Names</b>	Toll-like receptor 2, CD282, Tlr2
<b>Target/Specificity</b>	This Mouse TLR2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 720-749 amino acids from the C-terminal region of mouse TLR2.
<b>Dilution</b>	WB~~1:2000
<b>Format</b>	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
<b>Storage</b>	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
<b>Precautions</b>	Mouse TLR2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	Tlr2
<b>Function</b>	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. Acts via MYD88 and TRAF6, leading

to NF-kappa-B activation, cytokine secretion and the inflammatory response (By similarity) (PubMed:[15690042](#)). May also promote apoptosis in response to lipoproteins (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 (By similarity). Recognizes M.tuberculosis major T-antigen EsxA (ESAT-6) which inhibits downstream MYD88-dependent signaling (PubMed:[17486091](#)). Acts as the major receptor for M.tuberculosis lipoproteins LprA, LprG, LpqH and PhoS1 (pstS1), in conjunction with TLR1 and for some but not all lipoproteins CD14 and/or CD36. The lipoproteins act as agonists to modulate antigen presenting cell functions in response to the pathogen (PubMed:[19362712](#)). Recombinant MPT83 from M.tuberculosis stimulates secretion of cytokines (TNF-alpha, IL-6 and IL-12p40) by mouse macrophage cell lines in a TLR2-dependent fashion, which leads to increased host innate immunity responses against the bacterium (PubMed:[22174456](#)). Lung macrophages which express low levels of TLR2 respond poorly to stimulation by M.tuberculosis LpqH (PubMed:[19362712](#)). Required for normal uptake of M.tuberculosis, a process that is inhibited by M.tuberculosis LppM (PubMed:[27220037](#)). Interacts with TICAM2 (By similarity).

### Cellular Location

Cell membrane; Single-pass type I membrane protein. Cytoplasmic vesicle, phagosome membrane; Single-pass type I membrane protein. Membrane raft {ECO:0000250|UniProtKB:O60603}. Note=Does not reside in lipid rafts before stimulation but accumulates increasingly in the raft upon the presence of the microbial ligand. In response to diacylated lipoproteins, TLR2:TLR6 heterodimers are recruited in lipid rafts, this recruitment determine the intracellular targeting to the Golgi apparatus. Triacylated lipoproteins induce the same mechanism for TLR2:TLR1 heterodimers. {ECO:0000250|UniProtKB:O60603}

### Tissue Location

Detected in a macrophage cell line, smooth muscle, lung, spleen, thymus, brain and adipose tissue. Cell surface expression detected in lung alveolar macrophages, dendritic macrophages and at lower levels in lung macrophages (at protein level) (PubMed:[19362712](#))

## Background

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TLR2 is a member of the Toll-like receptor (TLR) family which plays a fundamental role in pathogen recognition and activation of innate immunity. TLRs are highly conserved from *Drosophila* to humans and share structural and functional similarities. They recognize pathogen-associated molecular patterns (PAMPs) that are expressed on infectious agents, and mediate the production of cytokines necessary for the development of effective immunity. The various TLRs exhibit different patterns of expression. TLR2 is expressed most abundantly in peripheral blood leukocytes, and mediates host response to Gram-positive bacteria and yeast via stimulation of NF-kappaB.

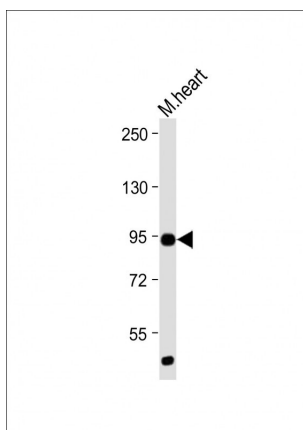
## References

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Okazaki, Y., et al., Nature 420(6915):563-573 (2002). Lin, Y., et al., J. Biol. Chem. 275(32):24255-24263 (2000). Matsuguchi, T., et al., Blood 95(4):1378-1385 (2000). Heine, H., et al., J. Immunol. 162(12):6971-6975 (1999). Underhill, D.M., et al., Nature 401(6755):811-815 (1999).

## Images

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Anti-mTLR2-V735 at 1:2000 dilution + Mouse heart lysate Lysates/proteins at 20  $\mu$ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 89 kDa  
Blocking/Dilution buffer: 5% NFDN/TBST.

## Citations

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- [Atherogenic high cholesterol/high fat diet induces TLRs-associated pulmonary inflammation in C57BL/6J mice.](#)