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TLR2 Antibody
Rabbit Polyclonal Antibody
Catalog # ABV10406

Specification

TLR2 Antibody - Product Information

Application	**WB**
Primary Accession	Q9QUN7
Other Accession	AAH14693
Reactivity	**Human, Mouse, Rat, Monkey**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**89449**

TLR2 Antibody - Additional Information

Gene ID 24088

Application & Usage	**Western blotting (0.5-4 µg/ml). However, the optimal conditions should be determined individually. The antibody recognizes ~86 kDa TLR2 in Jurkat cell lysate. Reactivity to other species has not been tested. Blocking peptide is available separately.**

Other Names
TLR2 , Anti-TLR2 , CD282 , TIL4, Toll-like receptor 2

Target/Specificity
TLR2

Antibody Form
Liquid

Appearance
Colorless liquid

Formulation
100 µg (0.5 mg/ml) affinity purified rabbit polyclonal antibody in phosphate-buffered saline (PBS), pH 7.2, containing 30% glycerol, 0.5% BSA, and 0.01% thimerosal.

Handling
The antibody solution should be gently mixed before use.

Reconstitution & Storage
-20 °C

Background Descriptions

Precautions
TLR2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

TLR2 Antibody - Protein Information

Name Tlr2

Function
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)

TLR2 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot

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- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

TLR2 Antibody - Images

TLR2 Antibody - Background

The Toll-like receptor (TLR) family in mammalian comprises a family of transmembrane proteins characterized by multiple copies of leucine rich repeats in the extracellular domain and IL-1 receptor motif in the cytoplasmic domain. Up-to-date, ten TLRs (TLR1-10) have been described. TLR2 is differentially expressed in human cells. CD14+ monocytes expressed the highest level of TLR2 followed by CD15+ granulocytes, and CD19+ B-cells. CD3+ T-cells and CD56+ NK cells did not express TLR2. The expression of TLR2 on different cell types is regulated by different immune response modifiers. For example, LPS, GM-CSF, IL-1, and IL-10 up regulate TLR2, whereas IL-4, IFN-gamma, and TNF down regulate TLR2 expression in monocytes.