

Mouse TLR2 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP1502c**Specification**

Mouse TLR2 Antibody (C-term) Blocking Peptide - Product InformationPrimary Accession [Q9QUN7](#)**Mouse TLR2 Antibody (C-term) Blocking Peptide - Additional Information****Gene ID** 24088**Other Names**

Toll-like receptor 2, CD282, Tlr2

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP1502c](/product/products/AP1502c) was selected from the C-term region of human Mouse TLR2 . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Mouse TLR2 Antibody (C-term) Blocking Peptide - 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](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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)

Mouse TLR2 Antibody (C-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

Mouse TLR2 Antibody (C-term) Blocking Peptide - Images

Mouse TLR2 Antibody (C-term) Blocking Peptide - Background

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.

Mouse TLR2 Antibody (C-term) Blocking Peptide - References

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).