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Mouse TLR1 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1501b

Specification

Mouse TLR1 Antibody (C-term) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	Q9EPQ1
Reactivity	**Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**90673**
Antigen Region	**764-795**

Mouse TLR1 Antibody (C-term) - Additional Information

Gene ID 21897

Other Names
Toll-like receptor 1, Toll/interleukin-1 receptor-like protein, TIL, CD281, Tlr1

Target/Specificity
This Mouse TLR1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 764-795 amino acids from the C-terminal region of mouse TLR1.

Dilution
WB~~1:1000
IHC-P~~1:50~100

Format
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.

Storage
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.

Precautions
Mouse TLR1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Mouse TLR1 Antibody (C-term) - Protein Information

Name Tlr1

Function Participates in the innate immune response to microbial agents. Specifically recognizes diacylated and triacylated lipopeptides. Cooperates with TLR2 to mediate the innate immune

response to bacterial lipoproteins or lipopeptides. Forms the activation cluster TLR2:TLR1:CD14 in response to triacylated lipopeptides, this cluster triggers signaling from the cell surface and subsequently is targeted to the Golgi in a lipid-raft dependent pathway. Acts via MYD88 and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response (By similarity). Acts as a coreceptor for M.tuberculosis lipoproteins LprG, LpqH and PhoS1 (pstS1), in conjunction with TLR2 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).

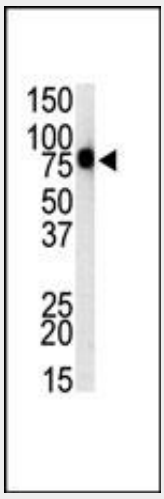
Cellular Location
Cell membrane; Single-pass type I membrane protein. Cytoplasmic vesicle, phagosome membrane; Single-pass type I membrane protein. Membrane raft {ECO:0000250|UniProtKB:Q15399}. Golgi apparatus {ECO:0000250|UniProtKB:Q15399}. Note=Does not reside in lipid rafts before stimulation but accumulates increasingly in the raft upon the presence of the microbial ligand. In response to triacylated lipoproteins, TLR2:TLR1 heterodimers are recruited in lipid rafts, this recruitment determine the intracellular targeting to the Golgi apparatus. {ECO:0000250|UniProtKB:Q15399}

Mouse TLR1 Antibody (C-term) - Protocols

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

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

Mouse TLR1 Antibody (C-term) - Images



Western blot analysis of anti-mTLR1 Pab (Cat. #AP1501b) in mouse spleen cell lysate. mTLR1 (arrow) was detected using purified Pab. Secondary HRP-anti-rabbit was used for signal visualization with chemiluminescence.

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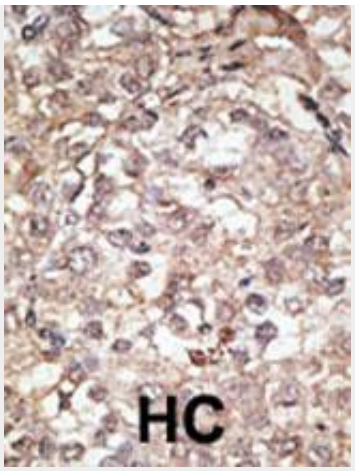

Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

Mouse TLR1 Antibody (C-term) - Background

Higher animals establish host defense by orchestrating innate and adaptive immunity. This is mediated by professional antigen presenting cells, i.e. dendritic cells (DCs). DCs can incorporate pathogens, produce a variety of cytokines, maturate, and present pathogen-derived peptides to T cells, thereby inducing T cell activation and differentiation. These responses are triggered by microbial recognition through type I transmembrane proteins, Toll-like receptors (TLRs) on DCs. TLRs consist of ten members and each TLR is involved in recognizing a variety of microorganism-derived molecular structures. TLR ligands include cell wall components, proteins, nucleic acids, and synthetic chemical compounds, all of which can activate DCs as immune adjuvants. Each TLR can activate DCs in a similar, but distinct manner. For example, TLRs can be divided into subgroups according to their type I interferon (IFN) inducing ability. TLR2 cannot induce IFN-alpha or IFN-beta, but TLR4 can lead to IFN-beta production. Meanwhile, TLR3, TLR7, and TLR9 can induce both IFN-alpha and IFN-beta. Recent evidences suggest that cytoplamic adapters for TLRs are especially crucial for this functional heterogeneity.

Mouse TLR1 Antibody (C-term) - References

Hajjar, A.M., et al., J. Immunol. 166(1):15-19 (2001).
Ozinsky, A., et al., Proc. Natl. Acad. Sci. U.S.A. 97(25):13766-13771 (2000).