

# TLR1 Antibody

Catalog # ASC10368

## Product Information

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| <b>Application</b>           | WB, IF, E, IHC-P                                                                                                                                                                                                   |
| <b>Primary Accession</b>     | <a href="#">Q15399</a>                                                                                                                                                                                             |
| <b>Other Accession</b>       | <a href="#">CAG38593</a> , <a href="#">49065550</a>                                                                                                                                                                |
| <b>Reactivity</b>            | Human, Mouse                                                                                                                                                                                                       |
| <b>Host</b>                  | Rabbit                                                                                                                                                                                                             |
| <b>Clonality</b>             | Polyclonal                                                                                                                                                                                                         |
| <b>Isotype</b>               | IgG                                                                                                                                                                                                                |
| <b>Calculated MW</b>         | 90291                                                                                                                                                                                                              |
| <b>Concentration (mg/ml)</b> | 1 mg/mL                                                                                                                                                                                                            |
| <b>Conjugate</b>             | Unconjugated                                                                                                                                                                                                       |
| <b>Application Notes</b>     | TLR1 antibody can be used for detection of TLR1 by Western blot at 1 to 4 $\mu$ g/mL. Antibody can also be used for immunohistochemistry starting at 10 $\mu$ g/mL. For immunofluorescence start at 20 $\mu$ g/mL. |

## Additional Information

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| <b>Gene ID</b>                      | 7096                                                                                                                                                                                                                                         |
| <b>Other Names</b>                  | TLR1 Antibody: TIL, CD281, rsc786, TIL. LPRS5, KIAA0012, Toll-like receptor 1, TIL, toll-like receptor 1                                                                                                                                     |
| <b>Target/Specificity</b>           | TLR1;                                                                                                                                                                                                                                        |
| <b>Reconstitution &amp; Storage</b> | TLR1 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures. |
| <b>Precautions</b>                  | TLR1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.                                                                                                                                              |

## Protein Information

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| <b>Name</b>     | TLR1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Synonyms</b> | KIAA0012                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Function</b> | 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 (PubMed: <a href="#">21078852</a> ). 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 (PubMed: <a href="#">16880211</a> ). Acts via MYD88 and TRAF6, leading to NF-kappa-B |

activation, cytokine secretion and the inflammatory response.

#### Cellular Location

Cell membrane; Single-pass type I membrane protein. Cytoplasmic vesicle, phagosome membrane {ECO:0000250 | UniProtKB:Q9EPQ1}; Single-pass type I membrane protein. Membrane raft. Golgi apparatus. 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.

#### Tissue Location

Ubiquitous. Highly expressed in spleen, ovary, peripheral blood leukocytes, thymus and small intestine

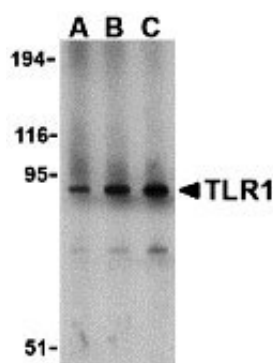
## Background

**TLR1 Antibody:** Toll-like receptors (TLRs) are evolutionarily conserved pattern-recognition molecules resembling the toll proteins that mediate antimicrobial responses in *Drosophila*. These proteins recognize different microbial products during infection and serve as an important link between the innate and adaptive immune responses. The TLRs act through adaptor molecules such as MyD88 and TIRAP to activate various kinases and transcription factors so the organism can respond to potential infection. TLR1 is co-expressed with TLR2 on myeloid cells of the innate immune systems in lymphoid tissue such as monocytes and dendritic cells where they form heterodimers that can recognize triacylated lipoproteins.

## References

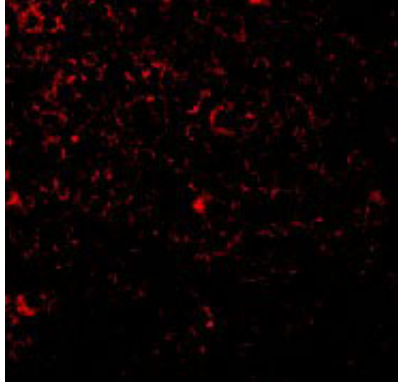
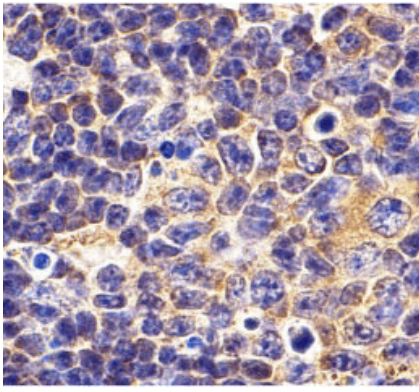
Vogel SN, Fitzgerald KA, and Fenton MJ. TLRs: differential adapter utilization by toll-like receptors mediates TLR-specific patterns of gene expression. *Mol. Interv.* 2003; 3:466-77.  
Takeda K, Kaisho T, and Akira S. Toll-like receptors. *Annu. Rev. Immunol.* 2003; 21:335-76.  
Janeway CA Jr. and Medzhitov R. Innate immune recognition. *Annu. Rev. Immunol.* 2002; 20:197-216.  
O'Neill LAJ, Fitzgerald FA, and Bowie AG. The Toll-IL-1 receptor adaptor family grows to five members. *Trends in Imm.* 2003; 24:286-9.

## Images



Western blot analysis of TLR1 in mouse spleen lysate with TLR1 antibody at (A) 1, (B) 2, and (C) 4 µg/mL.

Immunohistochemistry of TLR1 in mouse spleen tissue with TLR1 antibody at 10 µg/mL.



Immunofluorescence of TLR1 in Mouse Spleen tissue

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