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TLR6 Antibody

Catalog # ASC10374

Product Information

Application	WB, ICC, E
Primary Accession	Q9Y2C9
Other Accession	NP_006059, 20143971
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	91880
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	TLR6 antibody can be used for detection of TLR6 by Western blot at 0.5 to 2 g/mL. Antibody can also be used for immunocytochemistry starting at 10 g/mL.

Additional Information

Gene ID	10333
Other Names	TLR6 Antibody: CD286, Toll-like receptor 6, toll-like receptor 6
Target/Specificity	TLR6; This TLR6 antibody is predicted to have no cross-reactivity to other members of the TLR protein family.
Reconstitution & Storage	TLR6 antibody can be stored at 4℃ for three months and -20℃, 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.
Precautions	TLR6 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TLR6
Function	Participates in the innate immune response to Gram-positive bacteria and fungi. Specifically recognizes diacylated and, to a lesser extent, triacylated lipopeptides (PubMed:20037584). In response to diacylated lipopeptides, forms the activation cluster TLR2:TLR6:CD14:CD36, this cluster triggers signaling from the cell surface and subsequently is targeted to the Golgi in a lipid-raft dependent pathway (PubMed:16880211). Acts via MYD88 and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response. Recognizes mycoplasmal macrophage-activating lipopeptide-2kD (MALP-2), soluble tuberculosis factor (STF), phenol-soluble modulin (PSM) and

	B.burgdorferi outer surface protein A lipoprotein (OspA-L) cooperatively with TLR2 (PubMed:11441107). In complex with TLR4, promotes sterile inflammation in monocytes/macrophages in response to oxidized low-density lipoprotein (oxLDL) or amyloid-beta 42. In this context, the initial signal is provided by oxLDL- or amyloid-beta 42- binding to CD36. This event induces the formation of a heterodimer of TLR4 and TLR6, which is rapidly internalized and triggers inflammatory response, leading to the NF-kappa-B-dependent production of CXCL1, CXCL2 and CCL9 cytokines, via MYD88 signaling pathway, and CCL5 cytokine, via TICAM1 signaling pathway, as well as IL1B secretion (PubMed:11441107, PubMed:20037584).
Cellular Location	Cell membrane; Single-pass type I membrane protein. Cytoplasmic vesicle, phagosome membrane {ECO:0000250|UniProtKB:Q9EPW9}; Single-pass type I membrane protein. Membrane raft. Golgi apparatus. Note=Upon complex formation with CD36 and TLR4, internalized through dynamin-dependent endocytosis. 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 (PubMed:16880211).
Tissue Location	Detected in monocytes, CD11c+ immature dendritic cells, plasmacytoid pre-dendritic cells and dermal microvessel endothelial cells

Background

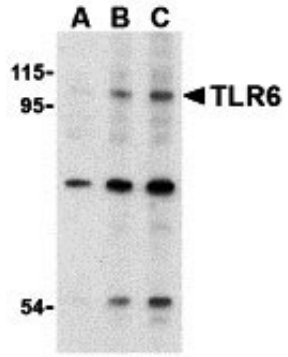
TLR6 Antibody: Toll-like receptors (TLRs) are evolutionarily conserved pattern-recognition molecules resembling the toll proteins that mediate antimicrobial responses in Drosophila. These proteins recognize different microbial products during infection and serve as an important link between the innate 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. TLR6 was first identified as a close homolog of TLR1, sharing 69% sequence identify. Like TLR1, TLR6 can form heterodimers with TLR2, and these TLR6:TLR2 dimers coordinate macrophage activation by Gram-positive bacteria and the yeast cell wall particle zymosan. Activation of these complexes not only initiates pro-inflammatory cascades, but also can lead to apoptotic responses.

References

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.
McGettrick AF and O'Neill LAJ. The expanding family of MyD88-like adaptors in Toll-like receptor signal transduction. Mol Imm. 2004; 41:577-82.
Takeuchi O, Kawai T, Sanjo H, et al. TLR6: A novel member of an expanding Toll-like receptor family. Gene 1999; 231:59-65.

Images

Western blot analysis of TLR6 in Jurkat cell lysate with TLR6 antibody at (A) 0.5, (B) 1 and (C) 2 µg/mL.



Immunocytochemistry of TLR6 in Jurkat cells with TLR6 antibody at 10 µg/mL.