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TLR5 Antibody

Catalog # ASC10372

Product Information

Application	WB, E, IHC-P
Primary Accession	O60602
Other Accession	NP_003259, 16751843
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	97800
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	TLR5 antibody can be used for detection of TLR5 by Western blot at 0.5 - 2 g/mL. Antibody can also be used for immunohistochemistry starting at 10 g/mL.

Additional Information

Gene ID	7100
Other Names	TLR5 Antibody: TIL3, SLEB1, MELIOS, TIL3, Toll-like receptor 5, toll-like receptor 5
Target/Specificity	TLR5;
Reconstitution & Storage	TLR5 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	TLR5 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TLR5
Synonyms	TIL3
Function	Pattern recognition receptor (PRR) located on the cell surface that participates in the activation of innate immunity and inflammatory response (PubMed:11323673, PubMed:18490781). Recognizes small molecular motifs named pathogen-associated molecular pattern (PAMPs) expressed by pathogens and microbe-associated molecular patterns (MAMPs) usually expressed by resident microbiota (PubMed:29934223). Upon ligand binding such as bacterial flagellins, recruits intracellular adapter proteins MYD88 and

	TRIF leading to NF- kappa-B activation, cytokine secretion and induction of the inflammatory response (PubMed:11489966, PubMed:20855887). Plays thereby an important role in the relationship between the intestinal epithelium and enteric microbes and contributes to the gut microbiota composition throughout life (By similarity).
Cellular Location	Cell membrane; Single-pass type I membrane protein
Tissue Location	Highly expressed on the basolateral surface of intestinal epithelia (PubMed:11489966). Expressed also in other cells such as lung epithelial cells (PubMed:11489966, PubMed:18490781)

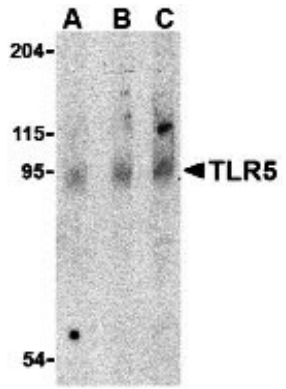
Background

TLR5 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. TLR5 recognizes flagellin from both Gram-positive and Gram-negative bacteria and will cause the activation of NF-κB, leading to the activation of TNF-α and other cytokines. A common TLR5 stop codon polymorphism that disrupts TLR5 signaling is associated with susceptibility to Legionnaires'disease and demonstrates the importance of TLR5 in the innate immune response.

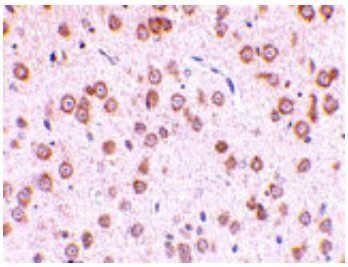
References

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.
Hayashi F, Smith KD, Ozinsky A, et al. The innate immune response to bacterial flagellin is mediated by Toll-like receptor 5. Nature 2001; 410:1099-103.

Images



Western blot analysis of TLR5 in rat brain cell lysate with TLR5 antibody at (A) 0.5, (B) 1 and (C) 2 µg/mL.



Immunohistochemistry of TLR5 in rat brain tissue with TLR5 antibody at 10 µg/mL.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.