10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

# TLR5 Antibody
**Catalog # ASC10373**

## Specification

### TLR5 Antibody - Product Information

| | |
|---|---|
| Application | **WB, ICC, IF** |
| Primary Accession | O60602 |
| Other Accession | NP_003259, 16751843 |
| Reactivity | **Human, Mouse** |
| Host | **Rabbit** |
| Clonality | **Polyclonal** |
| Isotype | **IgG** |
| Application Notes | **TLR5 antibody can be used for detection of TLR5 by Western blot at 0.5 to 2 µg/mL. Antibody can also be used for immunocytochemistry starting at 10 µg/mL. For immunofluorescence start at 10 µg/mL.** |

### TLR5 Antibody - 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.

### TLR5 Antibody - 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:<a href="http://www.uniprot.org/citations/11323673" target="_blank">11323673</a>, PubMed:<a href="http://www.uniprot.org/citations/18490781" target="_blank">18490781</a>). 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:<a href="http://www.uniprot.org/citations/29934223" target="_blank">29934223</a>). 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:<a href="http://www.uniprot.org/citations/20855887" target="_blank">20855887</a>, PubMed:<a href="http://www.uniprot.org/citations/11489966" target="_blank">11489966</a>). 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

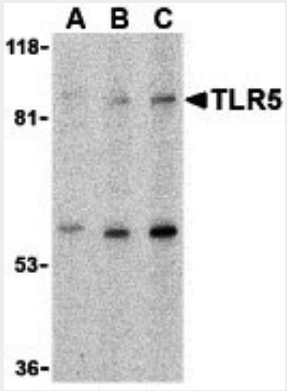
**Tissue Location**
Highly expressed on the basolateral surface of intestinal epithelia (PubMed:11489966). Expressed also in other cells such as lung epithelial cells (PubMed:11489966, PubMed:18490781)

## TLR5 Antibody - Protocols

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

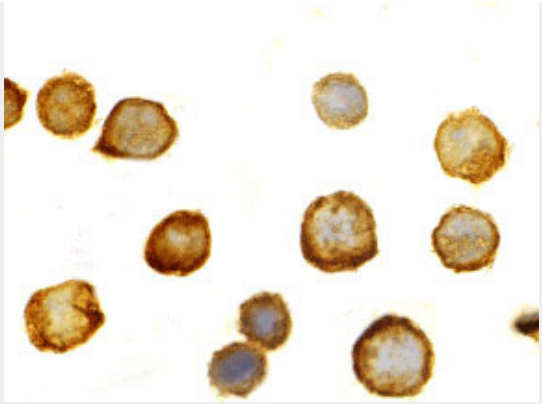
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

## TLR5 Antibody - Images

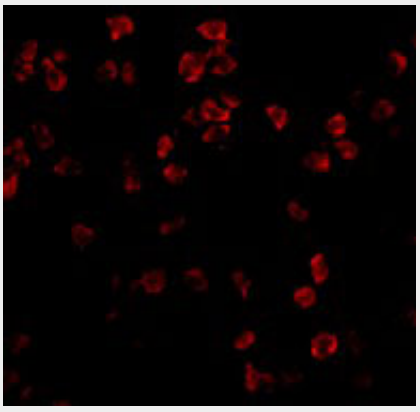



Western blot analysis of TLR5 in THP-1 cell lysate with TLR5 antibody at (A) 0.5, (B) 1 and (C) 2 µg/mL.

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



Immunocytochemistry of TLR5 in THP-1 cells with TLR5 antibody at 10 µg/mL.



Immunofluorescence of TLR5 in THP1 cells with TLR5 antibody at 10 µg/mL.

**TLR5 Antibody - 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.

**TLR5 Antibody - 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. Nature2001; 410:1099-103.