

### **TOLLIP Antibody**

Catalog # ASC10396

#### **Specification**

### **TOLLIP Antibody - Product Information**

Application
Primary Accession
Other Accession
Reactivity
Host
Clonality
Isotype
Application Notes

WB, ICC, E <u>Q9H0E2</u> AAH18272, 17390641

Human, Mouse, Rat Rabbit

Polyclonal

IgG

TOLLIP antibody can be used for the detection of TOLLIP by Western blot at 0.5 - 2 μg/mL. Antibody can also be used for immunocytochemistry starting at 2 μg/mL.

## **TOLLIP Antibody - Additional Information**

Gene ID 54472

**Other Names** 

TOLLIP Antibody: IL-1RAcPIP, Toll-interacting protein, toll interacting protein

Target/Specificity

TOLLIP;

#### **Reconstitution & Storage**

TOLLIP 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.

#### **Precautions**

TOLLIP Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## **TOLLIP Antibody - Protein Information**

#### Name TOLLIP

### **Function**

Component of the signaling pathway of IL-1 and Toll-like receptors (PubMed:<a href="http://www.uniprot.org/citations/10854325" target="\_blank">10854325</a>, PubMed:<a href="http://www.uniprot.org/citations/11751856" target="\_blank">11751856</a>). Inhibits cell activation by microbial products. Recruits IRAK1 to the IL-1 receptor complex (PubMed:<a href="http://www.uniprot.org/citations/10854325" target="\_blank">10854325</a>). Inhibits IRAK1 phosphorylation and kinase activity (PubMed:<a

href="http://www.uniprot.org/citations/11751856" target="\_blank">11751856</a>). Connects the ubiquitin pathway to autophagy by functioning as a ubiquitin-ATG8 family adapter and thus mediating autophagic clearance of ubiquitin conjugates (PubMed:<a



href="http://www.uniprot.org/citations/25042851" target="\_blank">25042851</a>). The TOLLIP-dependent selective autophagy pathway plays an important role in clearance of cytotoxic polyQ proteins aggregates (PubMed:<a href="http://www.uniprot.org/citations/25042851" target="\_blank">25042851</a>). In a complex with TOM1, recruits ubiquitin-conjugated proteins onto early endosomes (PubMed:<a href="http://www.uniprot.org/citations/15047686" target="\_blank">15047686</a>). Binds to phosphatidylinositol 3-phosphate (PtdIns(3)P) (PubMed:<a href="http://www.uniprot.org/citations/26320582" target="\_blank">26320582</a>).

#### **Cellular Location**

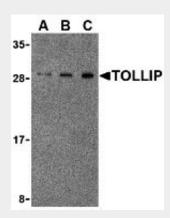
Cytoplasm. Endosome. Early endosome Note=Localized to endo/exosomal vesicles

## **TOLLIP Antibody - Protocols**

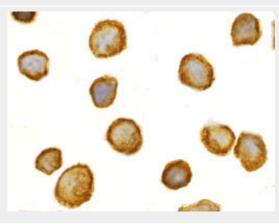
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

### **TOLLIP Antibody - Images**



Western blot analysis of TOLLIP in rat brain cell lysate with TOLLIP antibody at (A) 0.5, (B) 1 and (C) 2  $\mu$ g/mL.





Immunocytochemistry of TOLLIP in THP-1 cells with TOLLIP antibody at 2 μg/mL.

### **TOLLIP Antibody - Background**

TOLLIP 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 to activate various kinases and transcription factors so the organism can respond to potential infection. These adaptor molecules include TOLLIP, MyD88, and TRIF. TOLLIP associates directly with TLR2 and TLR 4, acting as an inhibitor to TLR activation. This negative regulation of TLR signaling may serve to limit the production of proinflammatory mediators during infection and inflammation.

# **TOLLIP 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.

Zhang G and Ghosh S. Negative regulation of Toll-like receptor-mediated signaling by Tollip. J. Biol. Chem.2002; 277:7059-65.