

## **TIRP Antibody**

Catalog # ASC10240

## **Specification**

## **TIRP Antibody - Product Information**

Application
Primary Accession
Other Accession
Reactivity
Host
Clonality
Isotype

**Application Notes** 

WB, IHC-P, IF, E <u>086XR7</u> <u>AAP81748</u>, <u>32435943</u>

Human, Mouse, Rat Rabbit

Polyclonal IgG

TIRP antibody can be used for detection of TIRP by Western blot at 1 µg/mL. Antibody

can also be used for

immunohistochemistry starting at 2  $\mu$ g/mL. For immunofluorescence start at 20  $\mu$ g/mL.

## **TIRP Antibody - Additional Information**

Gene ID 353376

**Other Names** 

TIRP Antibody: TIRP, TRAM, TIRAP3, MyD88-4, TICAM-2, TIRP, TIR domain-containing adapter molecule 2, Putative NF-kappa-B-activating protein 502, toll-like receptor adaptor molecule 2

**Target/Specificity** 

TICAM2:

## **Reconstitution & Storage**

TIRP antibody can be stored at  $4^{\circ}$ C for three months and  $-20^{\circ}$ 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**

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

## **TIRP Antibody - Protein Information**

Name TICAM2

Synonyms TIRAP3, TIRP, TRAM

#### **Function**

Functions as a sorting adapter in different signaling pathways to facilitate downstream signaling leading to type I interferon induction (PubMed:<a

href="http://www.uniprot.org/citations/16603631" target="\_blank">16603631</a>, PubMed:<a href="http://www.uniprot.org/citations/16757566" target="\_blank">16757566</a>, PubMed:<a href="http://www.uniprot.org/citations/25385819" target="\_blank">25385819</a>, PubMed:<a



href="http://www.uniprot.org/citations/25825441" target="\_blank">25825441</a>). In TLR4 signaling, physically bridges TLR4 and TICAM1 and functionally transmits signal to TICAM1 in early endosomes after endocytosis of TLR4. In TLR2 signaling, physically bridges TLR2 and MYD88 and is required for the TLR2- dependent movement of MYD88 to endosomes following ligand engagement (PubMed:<a href="http://www.uniprot.org/citations/25385819" target="\_blank">25385819" target="\_blank">25385819</a>). Involved in IL-18 signaling and is proposed to function as a sorting adapter for MYD88 in IL-18 signaling during adaptive immune response (PubMed:<a href="http://www.uniprot.org/citations/22685567" target="\_blank">22685567</a>). Forms a complex with RAB11FIP2 that is recruited to the phagosomes to promote the activation of the actin-regulatory GTPases RAC1 and CDC42 and subsequent phagocytosis of Gram-negative bacteria (PubMed:<a href="http://www.uniprot.org/citations/30883606" target="blank">30883606</a>).

#### **Cellular Location**

[Isoform 1]: Cytoplasm. Golgi apparatus. Cell membrane. Endoplasmic reticulum. Early endosome membrane. Late endosome membrane. Cell projection, phagocytic cup. Note=Localized to the plasma membrane as a result of myristoylation. Phosphorylation on Ser-16 leads to its depletion from the membrane. Upon LPS stimulation colcoalizes with isoform 2 in late endosomes

#### **Tissue Location**

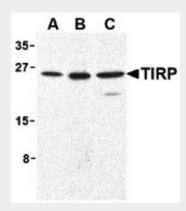
Expressed in spleen, prostate, testis, uterus, small intestine, colon, peripheral blood leukocytes, heart, placenta, lung, liver, skeletal muscle, and pancreas Isoform 2 is ubiquitously expressed (at lower levels than isoform 1)

#### **TIRP Antibody - Protocols**

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

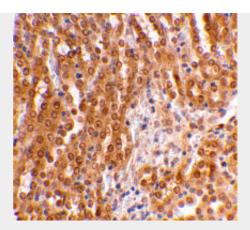
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

## **TIRP Antibody - Images**

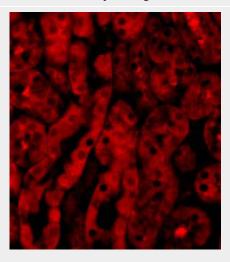


Western blot analysis of TIRP in human (A), mouse (B), and rat (C) kidney cell lysates with TIRP antibody (C2) at  $1 \mu g/mL$ .





Immunohistochemical staining of mouse kidney using TIRP antibody at 2 µg/mL.



Immunofluorescence of TIRP in Mouse Kidney cells with TIRP antibody at 20 µg/mL.

# **TIRP Antibody - Background**

TIRP Antibody: TIRP is a member of the Toll/interleukin-1 receptor (TIR) family, a group of proteins that include the Toll-like receptors (TLRs). TLRs are signaling molecules that recognize different pathogen-associated molecular patterns (PAMPs) and serve as an important link between the innate and adaptive immune responses. TIRP, along with other molecules such as TRIF, MAL, and MyD88, serves as an adaptor protein that allows for the interaction and activation of the IL-1R-associated kinase (IRAK) family, the subsequent activation of TNF receptor associated factor (TRAF)-6, and ultimately the activation of NF-κB. Expression of TIRP appears to be essential for TLR4 signalling.

## **TIRP Antibody - References**

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.

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.