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TIRP Antibody

Catalog # ASC10240

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q86XR7
Other Accession	AAP81748, 32435943
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	26916
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	TIRP antibody can be used for detection of TIRP by Western blot at 1 g/mL. Antibody can also be used for immunohistochemistry starting at 2 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	100302736;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℃ 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	TIRP Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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:16603631, PubMed:16757566, PubMed:25385819, PubMed:25825441). 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:25385819). 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:22685567). 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:30883606).
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)

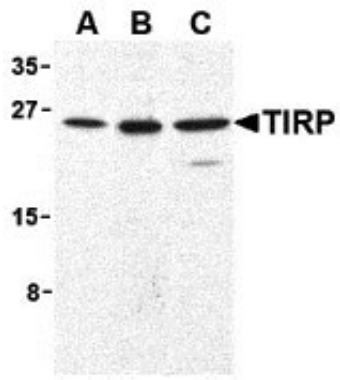
Background

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.

References

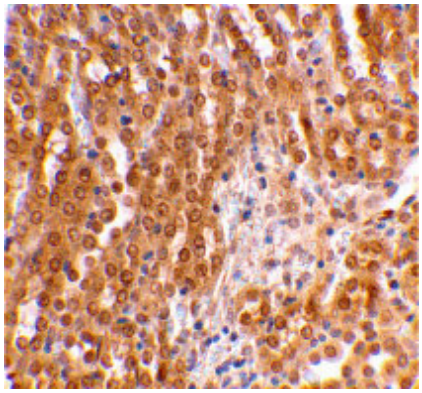
O'Neill LAJ, Fitzgerald FA, and Bowie AG. The Toll-IL-1 receptor adaptor family grows to five members. Trends in Imm. 2003;24:286-9.
Vogel SN, Fitzgerald KA, and Fenton MJ. TLRs: differential adapter utilization by toll-like receptors mediates TLR-specific patterns of gene expression. Mol. Interv. 2003;3:466-77.
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.

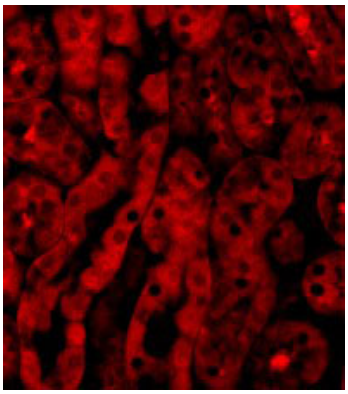
Images



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