

Rabbit TOLLIP Polyclonal Antibody | anti-TOLLIP antibody

TOLLIP Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326680	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

TOLLIP; Polyclonal Antibody; TOLLIP Antibody; Adapter protein; FLJ33531; IL 1RacPIP; IL1RacPIP; TOLIP; TOLIP_HUMAN; Toll interacting protein; Toll-interacting protein; tollip; anti-TOLLIP antibody

PRODUCT SPECIFICATIONS

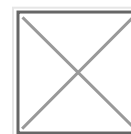
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	TOLLIP antibody detects endogenous levels of total TOLLIP
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	224
Applicable Applications for anti-TOLLIP antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human TOLLIP
Subcellular Location	Cytoplasm.
Predicted Cross Reactivity	Pig, Zebrafish, Bovine, Horse, Rabbit, Dog, Chicken, Xenopus
Similarity	Pig (100%), Zebrafish (100%), Bovine (100%), Horse (100%), Rabbit (100%), Dog (100%), Chicken (100%), Xenopus (83%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IF (Immunofluorescence)

AAA326680 staining HuvEc cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600, was used as secondary antibody.



IHC (Immunohistochemistry)

AAA326680 at 1/100 staining Rat spleen tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

**WB (Western Blot)**

Western blot analysis of extracts of PC-3, using TOLLIP antibody. The lane on the left is treated with the antigen-specific peptide.

**WB (Western Blot)**

Western blot analysis of extracts from mouse muscle, using TOLLIP Antibody.

ADDITIONAL INFORMATION**Related Product Information for anti-TOLLIP antibody**

Description: Members of the Toll-like receptor (TLR) family, named for the closely related Toll receptor in *Drosophila*, play a pivotal role in innate immune responses (1-3). TLRs recognize conserved motifs found in various pathogens and mediate defense responses. Triggering of the TLR pathway leads to the activation of NF-kappaB and subsequent regulation of immune and inflammatory genes. The TLRs and members of the IL-1 receptor family share a conserved stretch of approximately 200 amino acids known as the Toll/Interleukin-1 receptor (TIR) domain. Upon activation, TLRs associate with a number of cytoplasmic adaptor proteins containing TIR domains, including myeloid differentiation factor 88 (MyD88), MyD88-adaptor-like/TIR-associated protein (MAL/TIRAP), Toll-receptor-associated activator of interferon (TRIF), and Toll-receptor-associated molecule (TRAM). This association leads to the recruitment and activation of IRAK1 and IRAK4, which form a complex with TRAF6 to activate TAK1 and IKK. Activation of IKK leads to the degradation of I-kappaB, which normally maintains NF-kappaB in an inactive state by sequestering it in the cytoplasm. Tollip (Toll interacting protein) is an adaptor protein discovered to be associated with the IRAK complex and recruited to IL-1R following IL-1 stimulation (4). Overexpression of Tollip results in impaired NF-kappaB signaling (4). Tollip also associates directly with TLR2 and TLR4 and inhibits TLR-mediated signaling through inhibition of IRAK (5). Studies of Tollip deficient mice suggest that it plays a role in the regulation of inflammatory cytokines in response to IL-1 and LPS (6).

Function: Component of the signaling pathway of IL-1 and Toll-like receptors. Inhibits cell activation by microbial products. Recruits IRAK1 to the IL-1 receptor complex. Inhibits IRAK1 phosphorylation and kinase activity (PubMed:11751856). Connects the ubiquitin pathway to autophagy by functioning as a ubiquitin-ATG8 family adapter and thus mediating autophagic clearance of ubiquitin conjugates. The TOLLIP-dependent selective autophagy pathway plays an important role in clearance of cytotoxic polyQ proteins aggregates (PubMed:25042851).

Subunit Structure: Oligomerizes. Binds to TLR2 and the TLR4-MD2 complex via its C-terminus. Exists as complex with IRAK1 in unstimulated cells. Upon IL-1 signaling, Tollip binds to the activated IL-1 receptor complex containing IL-1RI, IL-1RacP and the adapter protein MyD88, where it interacts with the TIR domain of IL-1RacP. MyD88 then triggers IRAK1 autophosphorylation, which in turn leads to the dissociation of IRAK1 from Tollip and IL-1RacP. Interacts with TOM1L2. Interacts with ATG8 family proteins (via AIM motifs), and ubiquitin (via CUE domain).

Post-translational Modifications: Phosphorylated by IRAK1 upon stimulation by IL-1 or microbial products.

Similarity: Both ATG8-interaction motifs (AIM1 and AIM2) are required for the association with ATG8 family proteins. Belongs to the tollip family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	972781729
NCBI GeneID	54472
NCBI Accession #	NP_001305441.1
NCBI GenBank Nucleotide #	NM_001318512.1
UniProt Accession #	Q9H0E2; Q9H9E6; Q9UJ69; B3KXC6
Molecular Weight	Observed: 30 kDa Predicted: 31 kDa
NCBI Official Full Name	toll-interacting protein isoform 2
NCBI Official Synonym Full Names	toll interacting protein
NCBI Official Symbol	TOLLIP
NCBI Official Synonym Symbols	IL-1RACPIP
NCBI Protein Information	toll-interacting protein

UniProt Protein Name	Toll-interacting protein
UniProt Gene Name	TOLLIP

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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