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TOLLIP Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2163b

Product Information

Application	IHC-P, WB, E
Primary Accession	Q9H0E2
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	30282
Antigen Region	221-250

Additional Information

Gene ID	54472
Other Names	Toll-interacting protein, TOLLIP
Target/Specificity	This TOLLIP antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 221-250 amino acids from the C-terminal region of human TOLLIP.
Dilution	IHC-P~~1:100~500 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	TOLLIP Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TOLLIP
Function	Component of the signaling pathway of IL-1 and Toll-like receptors (PubMed:10854325, PubMed:11751856). Inhibits cell activation by microbial products. Recruits IRAK1 to the IL-1 receptor complex (PubMed:10854325). 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 (PubMed:25042851). The TOLLIP-dependent selective autophagy pathway plays an important role in clearance of cytotoxic polyQ proteins aggregates (PubMed:25042851). In a complex with TOM1, recruits ubiquitin-conjugated proteins onto early endosomes (PubMed:15047686). Binds to phosphatidylinositol 3-phosphate (PtdIns(3)P) (PubMed:26320582).
Cellular Location	Cytoplasm. Endosome. Early endosome Note=Localized to endo/exosomal vesicles

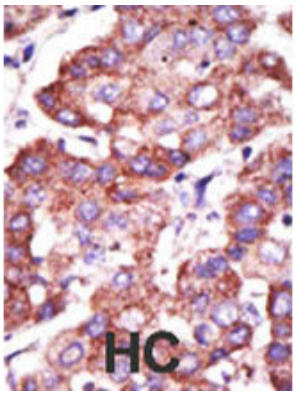
Background

Toll like protein is a component of the signaling pathway of IL1 and Toll like receptors. It inhibits cell activation by microbial products. Tollip recruits IRAK1 to the IL1 receptor complex and inhibits IRAK1 phosphorylation and kinase activity. It oligomerizes and binds to TLR2 and the TLR4-MD2 complex via its C terminus. It exists as a complex with IRAK1 in unstimulated cells. Upon IL1 signaling, Tollip binds to the activated IL1 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. TOLLIP also interacts with TLR2 and TLR4; TOLLIP overexpression inhibits nuclear factor kappa-B (NFKB) activation in response to lipopolysaccharide and IL1B.

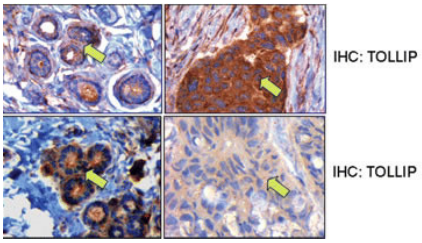
References

Zhang, G., et al., J. Biol. Chem. 277(9):7059-7065 (2002).
Bulut, Y., et al., J. Immunol. 167(2):987-994 (2001).
Burns, K., et al., Nat. Cell Biol. 2(6):346-351 (2000).
Volpe, F., et al., FEBS Lett. 419(1):41-44 (1997).

Images

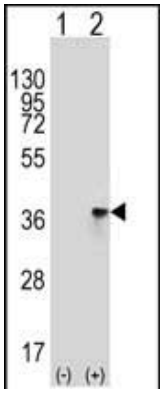


Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.



Middle panels, TOLLIP expression in matched normal and tumor breast samples. Here the TOLLIP stain in the invasive ductal carcinoma cells shows a much stronger signal compared with the normal ductal cells. Bottom panels, TOLLIP expression in matched normal and tumor breast samples. In this case, the signal for TOLLIP in the normal ductal cells is stronger than that in the invasive ductal carcinoma cells.

Western blot analysis of TOLLIP (arrow) using rabbit polyclonal TOLLIP Antibody (A236) (Cat. #AP2163b). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the TOLLIP gene.



Citations

- Differential expression of novel tyrosine kinase substrates during breast cancer development.