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TOLLIP Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP1521a

Specification

TOLLIP Antibody (N-term) Blocking Peptide - Product Information

Primary Accession Q9H0E2

TOLLIP Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 54472

Other Names
Toll-interacting protein, TOLLIP

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP1521a was selected from the N-term region of human TOLLIP. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

TOLLIP Antibody (N-term) Blocking Peptide - 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:<a href="http://www.uniprot.org/citations/25042851"

target="_blank">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

TOLLIP Antibody (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides

TOLLIP Antibody (N-term) Blocking Peptide - Images

TOLLIP Antibody (N-term) Blocking Peptide - Background

Toll-interacting protein (Tollip) was initially identified as an important constituent of the IL-1R signaling pathway. Recently it was showed that this adapter protein is also involved in TLR2 and TLR4 signaling pathways. Tollip coimmunoprecipitates with TLR2 and TLR4 and overexpression of Tollip was shown to inhibit NF-kB activation in response to TLR2 and TLR4 signaling. Human TOLLIP protein is 274-amino acid, which is 97% identical to the mouse sequence. Structurally, Tollip contains a type II C2 motif. Immunoblot analysis showed expression of a 30-kD protein in numerous tissues and cell lines. Functionally, Tollip inhibits cell activation by microbial products, recruits IRAK1 to the IL-1 receptor complex and inhibits IRAK1 phosphorylation and kinase activity. Since the inhibition by Tollip is mediated through its ability to suppress the activity of IRAK, Tollip may act as moderator of the inflammatory response following TLR activation.

TOLLIP Antibody (N-term) Blocking Peptide - 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).