

ITCH/AIP4 Antibody (N-Term) Blocking peptide
Synthetic peptide
Catalog # BP2171a**Specification**

ITCH/AIP4 Antibody (N-Term) Blocking peptide - Product Information

Primary Accession [O96J02](#)
Other Accession [O9BY75](#)

ITCH/AIP4 Antibody (N-Term) Blocking peptide - Additional Information

Gene ID 83737

Other Names

E3 ubiquitin-protein ligase Itchy homolog, Itch, 632-, Atrophin-1-interacting protein 4, AIP4, NFE2-associated polypeptide 1, NAPP1, ITCH

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP2171a](/product/products/AP2171a) was selected from the N-term region of human ITCH. 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.

ITCH/AIP4 Antibody (N-Term) Blocking peptide - Protein Information

Name ITCH

Function

Acts as an E3 ubiquitin-protein ligase which accepts ubiquitin from an E2 ubiquitin-conjugating enzyme in the form of a thioester and then directly transfers the ubiquitin to targeted substrates (PubMed: [11046148](http://www.uniprot.org/citations/11046148), PubMed: [14602072](http://www.uniprot.org/citations/14602072), PubMed: [15051726](http://www.uniprot.org/citations/15051726), PubMed: [16387660](http://www.uniprot.org/citations/16387660), PubMed: [17028573](http://www.uniprot.org/citations/17028573), PubMed: [18718448](http://www.uniprot.org/citations/18718448), PubMed: [18718449](http://www.uniprot.org/citations/18718449), PubMed: [19116316](http://www.uniprot.org/citations/19116316))

Page 2/3

[23886940](http://www.uniprot.org/citations/23886940)). Ubiquitinates SNX9 (PubMed:[20491914](http://www.uniprot.org/citations/20491914)). Ubiquitinates MAP3K7 through 'Lys-48'-linked conjugation (By similarity). Together with UBR5, involved in the regulation of apoptosis and reactive oxygen species levels through the ubiquitination and proteasomal degradation of TXNIP: catalyzes 'Lys-48'-'Lys-63'-branched ubiquitination of TXNIP (PubMed:[20068034](http://www.uniprot.org/citations/20068034), PubMed:[29378950](http://www.uniprot.org/citations/29378950)). ITCH synthesizes 'Lys-63'-linked chains, while UBR5 is branching multiple 'Lys-48'-linked chains of substrate initially modified (PubMed:[29378950](http://www.uniprot.org/citations/29378950)). Mediates the antiapoptotic activity of epidermal growth factor through the ubiquitination and proteasomal degradation of p15 BID (PubMed:[20392206](http://www.uniprot.org/citations/20392206)). Ubiquitinates BRAT1 and this ubiquitination is enhanced in the presence of NDFIP1 (PubMed:[25631046](http://www.uniprot.org/citations/25631046)). Inhibits the replication of influenza A virus (IAV) via ubiquitination of IAV matrix protein 1 (M1) through 'Lys-48'-linked conjugation resulting in M1 proteasomal degradation (PubMed:[30328013](http://www.uniprot.org/citations/30328013)). Ubiquitinates NEDD9/HEF1, resulting in proteasomal degradation of NEDD9/HEF1 (PubMed:[15051726](http://www.uniprot.org/citations/15051726)).

Cellular Location

Cell membrane; Peripheral membrane protein; Cytoplasmic side. Cytoplasm. Nucleus Early endosome membrane; Peripheral membrane protein; Cytoplasmic side. Endosome membrane; Peripheral membrane protein; Cytoplasmic side. Note=May be recruited to exosomes by NDFIP1 (PubMed:18819914). Localizes to plasma membrane upon CXCL12 stimulation where it co-localizes with CXCL4 (PubMed:14602072) Localization to early endosomes is increased upon CXCL12 stimulation where it co-localizes with DTX3L and CXCL4 (PubMed:24790097)

Tissue Location

Widely expressed.

ITCH/AIP4 Antibody (N-Term) Blocking peptide - Protocols

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

- [Blocking Peptides](#)

ITCH/AIP4 Antibody (N-Term) Blocking peptide - Images

ITCH/AIP4 Antibody (N-Term) Blocking peptide - Background

ITCH is an E3 ubiquitin-protein ligase which accepts ubiquitin from an E2 ubiquitin-conjugating enzyme in the form of a thioester and then directly transfers the ubiquitin to targeted substrates. It regulates the transcriptional activity of several transcription factors, and probably plays an important role in the regulation of immune response. ITCH down-regulates Epstein-Barr virus LMP2A activity in B cell signaling, and has been shown to interact via its WW domains with DRPLA, NFE2 and CBLC. Other potential interaction partners include NOTCH1, OCLN, JUN and JUNB .

ITCH/AIP4 Antibody (N-Term) Blocking peptide - References

Courbard, J.R., et al., J. Biol. Chem. 277(47):45267-45275 (2002).Strausberg, R.L., et al., Proc. Natl. Acad. Sci. U.S.A. 99(26):16899-16903 (2002).Deloukas, P., et al., Nature 414(6866):865-871 (2001).Chen, X., et al., Genomics 73(2):238-241 (2001).Winberg, G., et al., Mol. Cell. Biol. 20(22):8526-8535 (2000).