

ILK1 Antibody (T197) Blocking Peptide
Synthetic peptide
Catalog # BP7651g**Specification**

ILK1 Antibody (T197) Blocking Peptide - Product Information

Primary Accession [O13418](#)
Other Accession [NP_004508](#)

ILK1 Antibody (T197) Blocking Peptide - Additional Information

Gene ID 3611

Other Names

Integrin-linked protein kinase, 59 kDa serine/threonine-protein kinase, ILK-1, ILK-2, p59ILK, ILK, ILK1, ILK2

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP7651g](/product/products/AP7651g) was selected from the T197 region of human ILK1. 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.

ILK1 Antibody (T197) Blocking Peptide - Protein Information

Name ILK ([HGNC:6040](#))

Function

Scaffold protein which mediates protein-protein interactions during a range of cellular events including focal adhesion assembly, cell adhesion and cell migration (PubMed:[17420447](http://www.uniprot.org/citations/17420447), PubMed:[20005845](http://www.uniprot.org/citations/20005845), PubMed:[30367047](http://www.uniprot.org/citations/30367047), PubMed:[32528174](http://www.uniprot.org/citations/32528174)). Regulates integrin-mediated signal transduction by contributing to inside-out integrin activation (By similarity). Recruits PARVA and LIMS1/PITCH to form the heterotrimeric IPP (ILK-PINCH-PARVIN) complex which binds to F-actin via the C-terminal tail of LIMS1 and the N-terminal region of PARVA, promoting F-actin filament bundling, a process required to generate force for actin

cytoskeleton reorganization and subsequent dynamic cell adhesion events such as cell spreading and migration (PubMed:30367047). Binding to PARVA promotes effective assembly of ILK into focal adhesions while PARVA-bound ILK can simultaneously engage integrin-beta cytoplasmic tails to mediate cell adhesion (PubMed:20005845). Plays a role with PARVG in promoting the cell adhesion and spreading of leukocytes (PubMed:16517730). Acts as an upstream effector of both AKT1/PKB and GSK3 (PubMed:9736715). Mediates trafficking of caveolae to the cell surface in an ITGB1-dependent manner by promoting the recruitment of IQGAP1 to the cell cortex which cooperates with its effector DIAPH1 to locally stabilize microtubules and allow stable insertion of caveolae into the plasma membrane (By similarity). Required for the maintenance of mitotic spindle integrity by promoting phosphorylation of TACC3 by AURKA (PubMed:18283114). Associates with chromatin and may act as a negative regulator of transcription when located in the nucleus (PubMed:17420447).

Cellular Location

Cell junction, focal adhesion. Cell membrane; Peripheral membrane protein; Cytoplasmic side. Cell projection, lamellipodium {ECO:0000250|UniProtKB:O55222}. Cytoplasm, myofibril, sarcomere. Cytoplasm Nucleus. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cytoplasm, cell cortex {ECO:0000250|UniProtKB:O55222}

Tissue Location

Highly expressed in heart followed by skeletal muscle, pancreas and kidney. Weakly expressed in placenta, lung and liver

ILK1 Antibody (T197) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

ILK1 Antibody (T197) Blocking Peptide - Images

ILK1 Antibody (T197) Blocking Peptide - Background

Transduction of extracellular matrix signals through integrins influences intracellular and extracellular functions, and appears to require interaction of integrin cytoplasmic domains with cellular proteins. Integrin-linked kinase (ILK), interacts with the cytoplasmic domain of beta-1 integrin. The ILK protein is a serine/threonine protein kinase with 4 ankyrin-like repeats. ILK regulates integrin-mediated signal transduction.

ILK1 Antibody (T197) Blocking Peptide - References

Li, Y., et al., J. Clin. Invest. 112(4):503-516 (2003). Troussard, A.A., et al., J. Biol. Chem. 278(25):22374-22378 (2003). Marotta, A., et al., Br. J. Cancer 88(11):1755-1762 (2003). Cordes, N., et al., Br. J. Cancer 88(9):1470-1479 (2003). Fukuda, T., et al., J. Cell Biol. 160(7):1001-1008 (2003).