

FNIP1 Antibody (internal region)
Peptide-affinity purified goat antibody
Catalog # AF2703a**Specification**

FNIP1 Antibody (internal region) - Product Information

Application	E
Primary Accession	Q8TF40
Other Accession	NP_001008738.2 , NP_588613.2 , 96459
Predicted	Human
Host	Goat
Clonality	Polyclonal
Concentration	0.5 mg/ml
Isotype	IgG
Calculated MW	130555

FNIP1 Antibody (internal region) - Additional Information**Gene ID** 96459**Other Names**

Folliculin-interacting protein 1, FNIP1, KIAA1961

Format

0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

FNIP1 Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

FNIP1 Antibody (internal region) - Protein Information**Name** FNIP1 {ECO:0000303|PubMed:17028174, ECO:0000312|HGNC:HGNC:29418}**Function**

Binding partner of the GTPase-activating protein FLCN: involved in the cellular response to amino acid availability by regulating the non-canonical mTORC1 signaling cascade controlling the MiT/TFE factors TFEB and TFE3 (PubMed:17028174, PubMed:18663353, PubMed:24081491, PubMed:37079666). Required to promote FLCN recruitment to lysosomes and interaction with Rag GTPases, leading to activation of the non-canonical mTORC1 signaling

(PubMed:24081491). In low-amino acid conditions, component of the lysosomal folliculin complex (LFC) on the membrane of lysosomes, which inhibits the GTPase-activating activity of FLCN, thereby inactivating mTORC1 and promoting nuclear translocation of TFEB and TFE3 (By similarity). Upon amino acid restimulation, disassembly of the LFC complex liberates the GTPase-activating activity of FLCN, leading to activation of mTORC1 and subsequent inactivation of TFEB and TFE3 (PubMed:37079666). Together with FLCN, regulates autophagy: following phosphorylation by ULK1, interacts with GABARAP and promotes autophagy (PubMed:25126726). In addition to its role in mTORC1 signaling, also acts as a co-chaperone of HSP90AA1/Hsp90: following gradual phosphorylation by CK2, inhibits the ATPase activity of HSP90AA1/Hsp90, leading to activate both kinase and non-kinase client proteins of HSP90AA1/Hsp90 (PubMed:27353360, PubMed:30699359). Acts as a scaffold to load client protein FLCN onto HSP90AA1/Hsp90 (PubMed:27353360). Competes with the activating co-chaperone AHSA1 for binding to HSP90AA1, thereby providing a reciprocal regulatory mechanism for chaperoning of client proteins (PubMed:27353360). Also acts as a core component of the reductive stress response by inhibiting activation of mitochondria in normal conditions: in response to reductive stress, the conserved Cys degron is reduced, leading to recognition and polyubiquitylation by the CRL2(FEM1B) complex, followed by proteasomal (By similarity). Required for B-cell development (PubMed:32905580).

Cellular Location

Lysosome membrane. Cytoplasm, cytosol. Note=Localizes to lysosome membrane in amino acid-depleted conditions and relocalizes to the cytosol upon refeeding (PubMed:29848618). Colocalizes with FLCN in the cytoplasm (PubMed:18663353).

Tissue Location

Strong expression is found in the heart, liver placenta, muscle, nasal mucosa, salivary gland and uvula and moderate expression in kidney and lung. Higher levels detected in clear cell renal cell carcinoma (RCC) and chromophobe RCC than in normal kidney tissue. Expressed in peripheral blood mononuclear cells (PubMed:32181500).

FNIP1 Antibody (internal region) - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

FNIP1 Antibody (internal region) - Images

FNIP1 Antibody (internal region) - Background

This antibody is expected to recognise both reported isoforms (NP_001008738.2 and NP_588613.2)

FNIP1 Antibody (internal region) - References

Folliculin encoded by the BHD gene interacts with a binding protein, FNIP1, and AMPK, and is involved in AMPK and mTOR signaling. Baba M, Hong SB, Sharma N, Warren MB, Nickerson ML, Iwamatsu A, Esposito D, Gillette WK, Hopkins RF 3rd, Hartley JL, Furihata M, Oishi S, Zhen W, Burke TR Jr, Linehan WM, Schmidt LS, Zbar B. Proc Natl Acad Sci U S A. 2006 Oct 17;103(42):15552-7. Epub 2006 Oct 6. PMID: 17028174