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FNIP2 Antibody (C-Terminus)
Rabbit Polyclonal Antibody
Catalog # ALS13522

Specification

FNIP2 Antibody (C-Terminus) - Product Information

Application	**WB, IHC-P, E**
Primary Accession	Q9P278
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**122kDa KDa**
Dilution	**WB~~1:1000** **IHC-P~~N/A** **E~~N/A**

FNIP2 Antibody (C-Terminus) - Additional Information

Gene ID 57600

Other Names
Folliculin-interacting protein 2, FNIP1-like protein, O6-methylguanine-induced apoptosis 1 protein, FNIP2, FNIPL, KIAA1450, MAPO1

Target/Specificity
Human FNIP2

Reconstitution & Storage
Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles. Store undiluted.

Precautions
FNIP2 Antibody (C-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

FNIP2 Antibody (C-Terminus) - Protein Information

Name FNIP2 {ECO:0000303|PubMed:18663353, ECO:0000312|HGNC:HGNC:29280}

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:18663353, PubMed:31672913, PubMed:36103527). Required to promote FLCN recruitment to lysosomes and interaction with Rag GTPases, leading to activation of the non- canonical mTORC1 signaling (By similarity). 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 (PubMed:31672913, PubMed:36103527). 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:31672913). 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: inhibits the ATPase activity of HSP90AA1/Hsp90, leading to activate both kinase and non-kinase client proteins of HSP90AA1/Hsp90 (PubMed:18403135). Acts as a scaffold to load client protein FLCN onto HSP90AA1/Hsp90 (PubMed:18403135). Competes with the activating co-chaperone AHSA1 for binding to HSP90AA1, thereby providing a reciprocal regulatory mechanism for chaperoning of client proteins (PubMed:18403135). May play a role in the signal transduction pathway of apoptosis induced by O6-methylguanine-mispaired lesions (By similarity).

Cellular Location
Lysosome membrane. Cytoplasm. Note=Colocalizes with FLCN in the cytoplasm.

Tissue Location
Widely expressed with highest levels in muscle, nasal mucosa, salivary gland, uvula, fat, liver, heart, placenta and pancreas (PubMed:18403135, PubMed:18663353, PubMed:27353360) Moderately expressed in the lung, small intestine, kidney and brain Lower levels detected in renal cell carcinoma than in normal kidney tissue (PubMed:18403135). Higher levels detected in oncocytoma tumors than in normal kidney. Higher levels detected in renal cell carcinoma tumors than in normal kidney tissue (PubMed:27353360)

FNIP2 Antibody (C-Terminus) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

FNIP2 Antibody (C-Terminus) - Images

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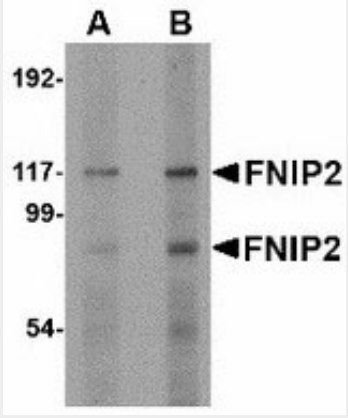
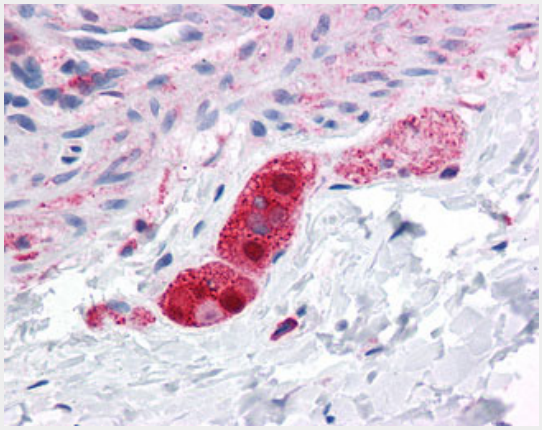
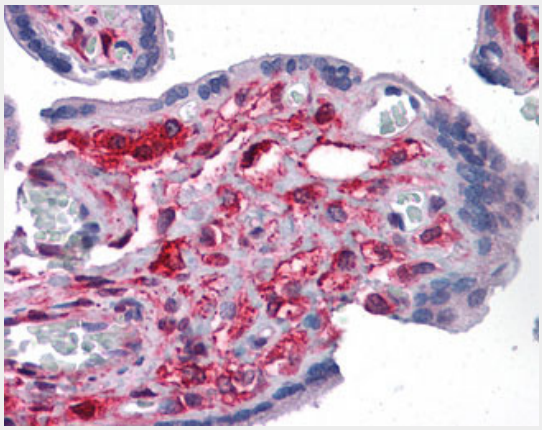


Western blot of FNIP2 in rat skeletal muscle lysate with FNIP2 antibody at (A) 1 and (B) 2 ug/ml.



Anti-FNIP2 antibody IHC of human colon, submucosal plexus.



Anti-FNIP2 antibody IHC of human placenta.

FNIP2 Antibody (C-Terminus) - Background

May play a role in the signal transduction pathway of apoptosis induced by O6-methylguanine-mispaired lesions (By similarity). May be involved in energy and/or nutrient sensing through the AMPK and mTOR signaling pathways. May regulate phosphorylation of RPS6KB1.

FNIP2 Antibody (C-Terminus) - References

Nagase T.,et al.DNA Res. 7:143-150(2000).

Ota T.,et al.Nat. Genet. 36:40-45(2004).
Hasumi H.,et al.Gene 415:60-67(2008).
Takagi Y.,et al.Oncogene 27:5339-5347(2008).
Komori K.,et al.Oncogene 28:1142-1150(2009).