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FNIP2 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP10654b

Specification

FNIP2 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession	Q9P278
Other Accession	NP_065891.1

FNIP2 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 57600

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

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.

FNIP2 Antibody (C-term) Blocking Peptide - 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-term) Blocking Peptide - Protocols

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

- Blocking Peptides

FNIP2 Antibody (C-term) Blocking Peptide - Images

FNIP2 Antibody (C-term) Blocking Peptide - References

Rose, J. Phd, et al. Mol. Med. (2010) In press :Hasumi, H., et al. Gene 415 (1-2), 60-67 (2008) :