

ULK2 Antibody

Mouse Monoclonal Antibody (Mab)
Catalog # AM1884B

Specification

ULK2 Antibody - Product Information

Application
Primary Accession
Other Accession
Reactivity
Host
Clonality

WB,E

<u>O8IYT8</u>

<u>NP_055498.3</u>, <u>NP_001136082.1</u> **Human**

Mouse Monoclonal IgM,K

ULK2 Antibody - Additional Information

Gene ID 9706

Isotype

Other Names

Serine/threonine-protein kinase ULK2, Unc-51-like kinase 2, ULK2, KIAA0623

Target/Specificity

This ULK2 monoclonal antibody is generated from mouse immunized with ULK2 recombinant protein.

Dilution

WB~~1:100

Format

Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Euglobin precipitation followed by dialysis against PBS.

Storage

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

Precautions

ULK2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

ULK2 Antibody - Protein Information

Name ULK2

Synonyms KIAA0623

Function Serine/threonine-protein kinase involved in autophagy in response to starvation. Acts upstream of phosphatidylinositol 3-kinase PIK3C3 to regulate the formation of autophagophores, the precursors of autophagosomes. Part of regulatory feedback loops in autophagy: acts both as a



downstream effector and a negative regulator of mammalian target of rapamycin complex 1 (mTORC1) via interaction with RPTOR. Activated via phosphorylation by AMPK, also acts as a negative regulator of AMPK through phosphorylation of the AMPK subunits PRKAA1, PRKAB2 and PRKAG1. May phosphorylate ATG13/KIAA0652, FRS2, FRS3 and RPTOR; however such data need additional evidences. Not involved in ammonia-induced autophagy or in autophagic response of cerebellar granule neurons (CGN) to low potassium concentration. Plays a role early in neuronal differentiation and is required for granule cell axon formation: may govern axon formation via Ras-like GTPase signaling and through regulation of the Rab5-mediated endocytic pathways within developing axons.

Cellular Location

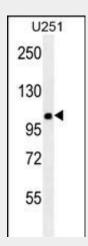
Cytoplasmic vesicle membrane; Peripheral membrane protein. Note=Localizes to pre-autophagosomal membrane

ULK2 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

ULK2 Antibody - Images



ULK2 antibody (Cat. #AM1884b) western blot analysis in U251 cell line lysates ($35\mu g$ /lane). This demonstrates the ULK2 antibody detected the ULK2 protein (arrow).

ULK2 Antibody - Background

This gene encodes a protein that is similar to a serine/threonine kinase in C. elegans which is involved in axonal elongation. The structure of this protein is similar to the C. elegans protein in that both proteins have an N-terminal kinase domain, a central proline/serine rich (PS) domain, and a C-terminal (C) domain. The gene is located within the Smith-Magenis syndrome region on chromosome 17. Alternatively spliced transcript variants encoding the same protein have been identified. [provided by RefSeq].





Tel: 858.875.1900 Fax: 858.875.1999

ULK2 Antibody - References

Rose, J. Phd, et al. Mol. Med. (2010) In press: Jung, C.H., et al. Mol. Biol. Cell 20(7):1992-2003(2009) Stelzl, U., et al. Cell 122(6):957-968(2005) Tomoda, T., et al. Genes Dev. 18(5):541-558(2004) Yan, J., et al. Oncogene 18(43):5850-5859(1999)