

# ULK2 Antibody

Purified Mouse Monoclonal Antibody

Catalog # AO2209a

## Product Information

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<b>Application</b>	WB, FC, E
<b>Primary Accession</b>	<a href="#">Q8IYT8</a>
<b>Reactivity</b>	Human, Mouse, Rat
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Clone Names</b>	2H4B2
<b>Isotype</b>	IgG1
<b>Calculated MW</b>	112694
<b>Description</b>	This gene encodes a protein that is similar to a serine/threonine kinase in <i>C. elegans</i> which is involved in axonal elongation. The structure of this protein is similar to the <i>C. elegans</i> 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.
<b>Immunogen</b>	Purified recombinant fragment of human ULK2 (AA: 1-155) expressed in <i>E. Coli</i> .
<b>Formulation</b>	Purified antibody in PBS with 0.05% sodium azide

## Additional Information

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<b>Gene ID</b>	9706
<b>Other Names</b>	Serine/threonine-protein kinase ULK2, 2.7.11.1, Unc-51-like kinase 2, ULK2, KIAA0623
<b>Dilution</b>	WB~~1/500 - 1/2000 FC~~1/200 - 1/400 E~~1/10000
<b>Storage</b>	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.
<b>Precautions</b>	ULK2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	ULK2
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## 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

## References

1.J Biol Chem. 2014 Aug 8;289(32):22306-18.2.Oncogene. 1999 Oct 21;18(43):5850-9.

## Images

