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# ULK2 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO2210a

## Product Information

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| **Application** | WB, FC, E |
| **Primary Accession** | Q8IYT8 |
| **Reactivity** | Human |
| **Host** | Mouse |
| **Clonality** | Monoclonal |
| **Clone Names** | 2H4B8 |
| **Isotype** | IgG1 |
| **Calculated MW** | 112694 |
| **Description** | 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. |
| **Immunogen** | Purified recombinant fragment of human ULK2 (AA: 1-155) expressed in E. Coli. |
| **Formulation** | Purified antibody in PBS with 0.05% sodium azide |

## Additional Information

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

## Protein Information

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| **Name** | 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 evidence. 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

