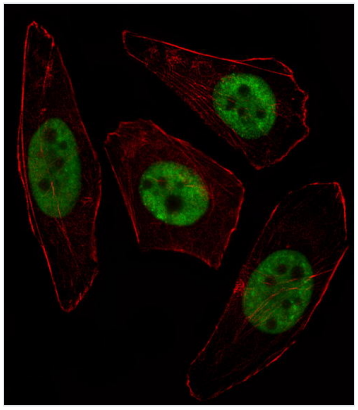
ULK2 Antibody – Rabbit Polyclonal

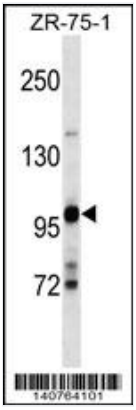
PRODUCT OVERVIEW

Product Name	ULK2, Polyclonal Antibody
Full Product Name	ULK2, ID (S323) (ULK2, KIAA0623, Serine/threonine-protein kinase ULK2, Unc-51-like kinase 2) (Azide free) (HRP)
Product Gene Name	anti-ULK2 antibody
Product Synonym Names	ULK2; KIAA0623; Serine/threonine-protein kinase ULK2; Unc-51-like kinase 2
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with Horseradish Peroxidase (HRP).
Purity/Purification	Purified by Protein A Affinity Chromatography.
Preparation and Storage	Store product at 4 degree C if to be used immediately within two weeks. For long-term storage, aliquot to avoid repeated freezing and thawing and store at -20 degree C. Aliquots are stable at -20 degree C for 12 months after receipt. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Note: Sodium azide is a potent inhibitor of peroxidase and should not be added to HRP conjugates. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap.
Molecular Weight	112,694 Da
OMIM	608650
3D Structure	ModBase 3D Structure for Q8IYT8
Immunogen	ULK2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 299-327 amino acids from the Central region of human ULK2.
Conjugate	HRP
Note	Preservative Free
Product Categories/Family for anti-ULK2 antibody	Antibodies; Protein Kinases
Applications Tested/Suitable for anti-ULK2 antibody	Western Blot (WB), ELISA (EIA)
Application Notes for anti-ULK2 antibody	WB: 1:100-500 ELISA: 1:1,000 Applications are based on unconjugated antibody.
Related Product Information for anti-ULK2 antibody	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].
Product References and Citations for anti-ULK2 antibody	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).

Other Notes	Small volumes of anti-ULK2 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for ULK2 purchase	MBS6361359 is an antibody targeting ULK2. Also known as ULK2, ID (S323) (ULK2, KIAA0623, Serine/threonine-protein kinase ULK2, Unc-51-like kinase 2) (Azide free) (HRP). Reactive in Human. Host: Rabbit.



Immunofluorescence (IF) of anti-ULK2 antibody
Fluorescent image of U251 cell stained with ULK2 Antibody (Center S323).U251 cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with ULK2 primary antibody (1:25, 1 h at 37 degree C). For secondary antibody, Alexa Fluor 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37 degree C).Cytoplasmic actin was counterstained with Alexa Fluor 555 (red) conjugated Phalloidin (7units/ml, 1 h at 37 degree C).ULK2 immunoreactivity is localized to Nucleus significantly.



Western Blot (WB) of anti-ULK2 antibody
ULK2 Antibody (S323) western blot analysis in ZR-75-1 cell line lysates (35ug/lane).This demonstrates the ULK2 antibody detected the ULK2 protein (arrow).

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ULK2. It may not necessarily be applicable to this product.

NCBI GI #	217330559
NCBI GeneID	9706
NCBI Accession #	NP_001136082.1
UniProt Primary Accession #	Q8IYT8
UniProt Secondary Accession #	O75119; A8MY69
UniProt Related Accession #	Q8IYT8
GenBank Nucleotide #	NM_001142610.1
NCBI Official Full Name	serine/threonine-protein kinase ULK2
NCBI Official Synonym Full Names	unc-51 like autophagy activating kinase 2
NCBI Official Symbol	ULK2
NCBI Official Synonym Symbols	ATG1B; Unc51.2
UniProt Protein Name	Serine/threonine-protein kinase ULK2
UniProt Synonym Protein Names	Unc-51-like kinase 2
Protein Family	Serine/threonine-protein kinase
UniProt Gene Name	ULK2
UniProt Synonym Gene Names	KIAA0623
UniProt Entry Name	ULK2_HUMAN
NCBI Protein Information	serine/threonine-protein kinase ULK2

NCBI Summary for ULK2	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, Dec 2008]
UniProt Comments for ULK2	ULK2: 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. Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. APG1/unc-51/ULK1 subfamily. Protein type: Kinase, protein; Autophagy; EC 2.7.11.1; Protein kinase, Other; Protein kinase, Ser/Thr (non-receptor); Other group; ULK family Chromosomal Location of Human Ortholog: 17p11.2 Cellular Component: cytoplasmic vesicle membrane; pre-autophagosomal structure membrane; cytosol Molecular Function: protein serine/threonine kinase activity; protein binding; ATP binding Biological Process: response to starvation; axon extension; protein amino acid autophosphorylation; regulation of autophagy; negative regulation of collateral sprouting; signal transduction; autophagic vacuole formation
Research Articles on ULK2	**1.** The serine/threonine kinase ULK2 binds to and phosphorylates CARMA2sh.
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