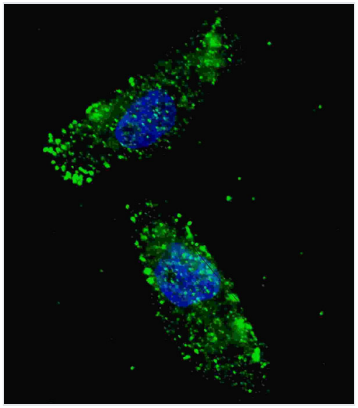
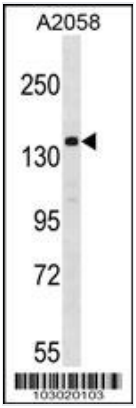
ULK1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	ULK1, Polyclonal Antibody
Full Product Name	ULK1, CT (Serine/Threonine-protein Kinase ULK1, Unc-51-like Kinase 1, ATG1, KIAA0722) (Azide free) (HRP)
Product Gene Name	anti-ULK1 antibody
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 G Affinity Chromatography.
Specificity	Recognizes human ULK1.
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	Predicted: 116 kDa Observed: 105 kDa
OMIM	603168
3D Structure	ModBase 3D Structure for O75385
Immunogen	Synthetic peptide selected from the C-terminal region of human ULK1 (KLH).
Conjugate	HRP
Note	Preservative Free
Product Categories/Family for anti-ULK1 antibody	Antibodies; Protein Kinases
Applications Tested/Suitable for anti-ULK1 antibody	Western Blot (WB), ELISA (EIA)
Application Notes for anti-ULK1 antibody	WB: 1:100-1:500 ELISA: 1:1,000 Applications are based on unconjugated antibody.
Related Product Information for anti-ULK1 antibody	MBS6504753 is an antibody targeting ULK1. Also known as ULK1, CT (Serine/Threonine-protein Kinase ULK1, Unc-51-like Kinase 1, ATG1, KIAA0722) (Azide free) (HRP). Reactive in Human. Host: Rabbit.
Product References and Citations for anti-ULK1 antibody	1. Scott, R., et al., Current Biology 17: 1-11 (2007). 2. Kuroyanagi, H., et al., Genomics 51(1):76-85 (1998).
Other Notes	Small volumes of anti-ULK1 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.



Immunofluorescence (IF) of anti-ULK1 antibody
Fluorescent image of U251 cells stained with APG1 (ULK1) (Center) antibody. U251 cells were treated with Chloroquine (50 uM,16h), then fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.2%, 30 min). Cells were then incubated with AP8104b APG1 (ULK1) (Center) primary antibody (1:100, 2 h at room temperature). For secondary antibody, Alexa Fluor 488 conjugated donkey anti-rabbit antibody (green) was used (1:1000, 1h). Nuclei were counterstained with Hoechst 33342 (blue) (10 ug/ml, 5 min). APG1 (ULK1) immunoreactivity is localized to autophagic vacuoles in the cytoplasm of U251 cells.



Western Blot (WB) of anti-ULK1 antibody
Western blot analysis of anti-ULK1 Pab in A2058 cell lysate. ULK1 (arrow) was detected using purified Pab. Secondary HRP-anti-rabbit was used for signal visualization with chemiluminescence.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ULK1. It may not necessarily be applicable to this product.

NCBI GI #	4507831
NCBI GeneID	8408
NCBI Accession #	NP_003556
UniProt Primary Accession #	O75385
UniProt Secondary Accession #	Q9UQ28
UniProt Related Accession #	O75385
GenBank Nucleotide #	NM_003565.2
NCBI Official Full Name	serine/threonine-protein kinase ULK1
NCBI Official Synonym Full Names	unc-51 like autophagy activating kinase 1
NCBI Official Symbol	ULK1
NCBI Official Synonym Symbols	ATG1; ATG1A; UNC51; hATG1; Unc51.1
UniProt Protein Name	Serine/threonine-protein kinase ULK1
UniProt Synonym Protein Names	Autophagy-related protein 1 homolog; ATG1; hATG1; Unc-51-like kinase 1
Protein Family	Serine/threonine-protein kinase
UniProt Gene Name	ULK1
UniProt Synonym Gene Names	KIAA0722; ATG1; hATG1
UniProt Entry Name	ULK1_HUMAN
NCBI Protein Information	serine/threonine-protein kinase ULK1; ATG1 autophagy related 1 homolog; autophagy-related protein 1 homolog

UniProt Comments for ULK1	ULK1: 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 negative regulator of mammalian target of rapamycin complex 1 (mTORC1) via interaction with RPTOR. Activated via phosphorylation by AMPK and also acts as a regulator of AMPK by mediating phosphorylation of AMPK subunits PRKAA1, PRKAB2 and PRKAG1, leading to negatively regulate AMPK activity. May phosphorylate ATG13/KIAA0652 and RPTOR; however such data need additional evidences. Plays a role early in neuronal differentiation and is required for granule cell axon formation. Interacts with GABARAP and GABARAPL2. Interacts (via C- terminus) with ATG13/KIAA0652. Part of a complex consisting of ATG13/KIAA0652, ULK1 and RB1CC1. Associates with the mammalian target of rapamycin complex 1 (mTORC1) through an interaction with RPTOR; the association depends on nutrient conditions and is reduced during starvation. Ubiquitously expressed. Detected in the following adult tissues: skeletal muscle, heart, pancreas, brain, placenta, liver, kidney, and lung. Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. APG1/unc-51/ULK1 subfamily. Protein type: Protein kinase, Other; EC 2.7.11.1; Protein kinase, Ser/Thr (non-receptor); Kinase, protein; Autophagy; Other group; ULK family Chromosomal Location of Human Ortholog: 12q24.3 Cellular Component: neuron projection; cytoplasmic vesicle membrane; cell soma; cytoplasm; pre-autophagosomal structure membrane; autophagic vacuole; cytosol Molecular Function: protein serine/threonine kinase activity; protein binding; protein complex binding; protein kinase binding; ATP binding; Rab GTPase binding Biological Process: axon extension; protein amino acid autophosphorylation; neurite regeneration; negative regulation of collateral sprouting; cerebellar granule cell differentiation; protein amino acid phosphorylation; radial glia guided migration of granule cell; response to starvation; cellular response to nutrient levels; protein localization; receptor internalization; Ras protein signal transduction; regulation of autophagy; regulation of nerve growth factor receptor signaling pathway; positive regulation of macroautophagy; positive regulation of autophagy; neurite development; autophagic vacuole formation
Research Articles on ULK1	**1.** Data show that under basal and stressed conditions, AMPK and ULK1 are differentially required for Atg2A S761 phosphorylation.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/polyclonal-human-antibody/ulk1/6504753