ULK2 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	ULK2, Polyclonal Antibody
Full Product Name	ULK2 (UNC-51-Like Kinase 2, Kiaa0623) (MaxLight 650)
Product Gene Name	anti-ULK2 antibody
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Mouse
Form/Format	Supplied as a liquid in PBS, pH 7.2. Labeled with MaxLight650.
Purity/Purification	Purified by affinity chromatography.
Specificity	Recognizes mouse Ulk2 (Serine/threonine-protein kinase Ulk2).
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight650 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	112,877 Da
3D Structure	ModBase 3D Structure for Q9QY01
Immunogen	KLH conjugated synthetic peptide corresponding to aa370-382 from mouse Ulk2. The corresponding sequence differs by 2aa in rat and 3aa in human. Species sequence homology: human and rat
Conjugate	MaxLight650
Note	Preservative Free
Product Categories/Family for anti-ULK2 antibody	Antibodies; Protein Kinases
Applications Tested/Suitable for anti-ULK2 antibody	Western Blot (WB)
Application Notes for anti-ULK2 antibody	WB: 2.5-5.0ug/ml, detects a band of ~130kD in HEK-293T cell lysates transfected with mouse ULK2. Applications are based on unconjugated antibody.
Related Product Information for anti-ULK2 antibody	MBS6444498 is an antibody targeting ULK2. Also known as ULK2 (UNC-51-Like Kinase 2, Kiaa0623) (MaxLight 650). Reactive in Mouse. Host: Rabbit.
Product References and Citations for anti-ULK2 antibody	1. Yan, J. et al. (1999). Mouse ULK2, a novel member of the UNC-51-like protein kinases: unique features of functional domains.Oncogene. 18: 5850-9. 2. Lee, E.J. and Tournier, C. et al. (2011) The requirement of uncoordinated 51-like kinase 1 (ULK1) and ULK2 in the regulation of autophagy.Autophagy. 7: 7689-95.
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.

ADDITIONAL DETAILS

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

NCBI GI #	238231390
NCBI GeneID	29869
NCBI Accession #	NP_038909.3
UniProt Primary Accession #	Q9QY01
UniProt Secondary Accession #	Q80TV7; Q9WTP4
UniProt Related Accession #	Q9QY01
GenBank Nucleotide #	NM_013881.4
NCBI Official Full Name	serine/threonine-protein kinase ULK2
NCBI Official Synonym Full Names	unc-51 like kinase 2
NCBI Official Symbol	Ulk2
NCBI Official Synonym Symbols	Unc51.2; AU015340; mKIAA0623; A830085I22Rik
UniProt Protein Name	Serine/threonine-protein kinase ULK2
UniProt Synonym Protein Names	Serine/threonine-protein kinase Unc51.2; Unc-51-like kinase 2
Protein Family	Serine/threonine-protein kinase
UniProt Gene Name	Ulk2
UniProt Synonym Gene Names	Kiaa0623
UniProt Entry Name	ULK2_MOUSE
NCBI Protein Information	serine/threonine-protein kinase ULK2; serine/threonine-protein kinase Unc51.2; unc-51-like kinase 2
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: EC 2.7.11.1; Kinase, protein; Autophagy; Protein kinase, Ser/Thr (non-receptor); Protein kinase, Other; Other group; ULK family Cellular Component: membrane; pre-autophagosomal structure membrane; cytoplasmic vesicle; cytosol Molecular Function: transferase activity; protein serine/threonine kinase activity; protein binding; transferase activity, transferring phosphorus-containing groups; nucleotide binding; kinase activity; ATP binding; protein kinase activity Biological Process: response to starvation; nervous system development; axonogenesis; axon extension; protein amino acid autophosphorylation; autophagy; regulation of autophagy; negative regulation of collateral sprouting; signal transduction; phosphorylation; protein amino acid phosphorylation; autophagic vacuole formation
Research Articles on ULK2	**1.** ULK2 induced autophagy and inhibited growth in Ras-transformed immortalized Baby Mouse Kidney (iBMK) ATG5(+/+) but not in autophagy-deficient ATG5(-/-) cells.
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