

Rabbit ULK1 Polyclonal Antibody | anti-ULK1 antibody

Phospho-ULK1 (Ser757)[Ser758] Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA31359	Rabbit	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Xenopus (88%)	Western Blot, Immunohistochemistry, ELISA

PRODUCT SYNONYMS

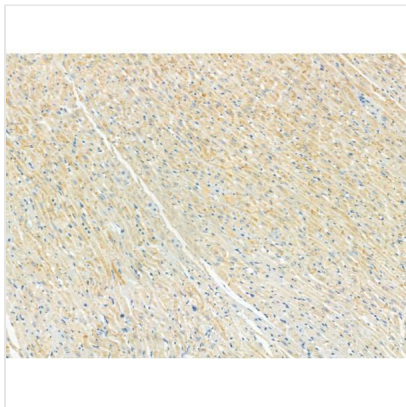
ULK1; Polyclonal Antibody; Phospho-ULK1 (Ser757)[Ser758] Antibody; ATG 1; ATG1; ATG1 autophagy related 1 homolog; ATG1A; Autophagy related protein 1 homolog; Autophagy-related protein 1 homolog; FLJ38455; FLJ46475; hATG1; KIAA0722; Serine/threonine protein kinase ULK1; Serine/threonine protein kinase Unc51.1; Serine/threonine-protein kinase ULK1; ULK 1; ULK1_HUMAN; Unc 51 (C. elegans) like kinase 1; UNC 51; Unc 51 like kinase 1; Unc-51 like kinase 1 (C. elegans); Unc-51-like kinase 1; UNC51; C. elegans; homolog of; Unc51.1; anti-ULK1 antibody

PRODUCT SPECIFICATIONS

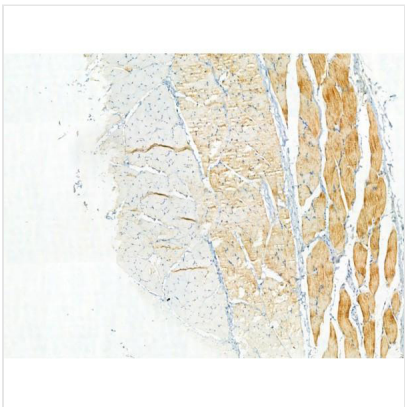
Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Xenopus (88%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-ULK1 (Ser757) Antibody detects endogenous levels of ULK1 only when phosphorylated at Ser757 of mouse ULK1 or Ser758 of human ULK1. Tissue Specificity: Ubiquitously expressed. Detected in the following adult tissues: skeletal muscle, heart, pancreas, brain, placenta, liver, kidney, and lung.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-ULK1 antibody	WB (Western Blot), IHC (Immunohistochemistry), ELISA (Peptide ELISA)
Application Notes	WB: 1:500-1:2000 IHC: 1:50-1:200 Peptide ELISA: 1:20,000-1:40,000
Immunogen	A synthesized peptide derived from mouse ULK1 around the phosphorylation site of Ser757. This site is equivalent to Ser758 in the human ULK1 sequence.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Autophosphorylated. Phosphorylated under nutrient-rich conditions; dephosphorylated during starvation or following treatment with rapamycin. Under nutrient sufficiency, phosphorylated by MTOR/mTOR, disrupting the interaction with AMPK and preventing activation of ULK1 (By similarity). In response to nutrient limitation, phosphorylated and activated by AMPK, leading to activate autophagy. Acetylated by KAT5/TIP60 under autophagy induction, promoting protein kinase activity.

Subunit Structure	Interacts with GABARAP and GABARAPL2. Interacts (via C-terminus) with ATG13. Part of a complex consisting of ATG13, ATG101, 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. Interacts with FEZ1; SCOC interferes with FEZ1-binding. Interacts with TBC1D14. Interacts (phosphorylated form) with TRIM5. When phosphorylated at Ser-317, interacts with MEFV and BECN1 simultaneously. Interacts with TRIM21 and IRF3, in the presence of TRIM21. Interacts with SESN2. Interacts with SQSTM1. Interacts with C9orf72. Interacts with WDR45.
Similarity	Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. APG1/unc-51/ULK1 subfamily.
Subcellular Location	Cytoplasm>Cytosol. Preautophagosomal structure. Note: Under starvation conditions, is localized to punctate structures primarily representing the isolation membrane that sequesters a portion of the cytoplasm resulting in the formation of an autophagosome.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

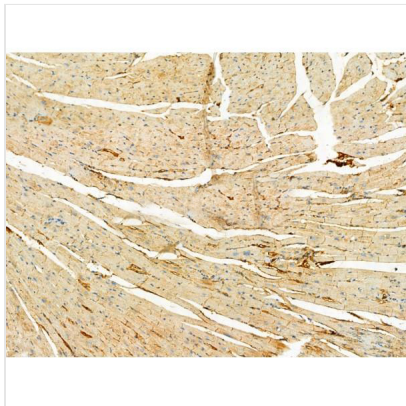
IMAGES



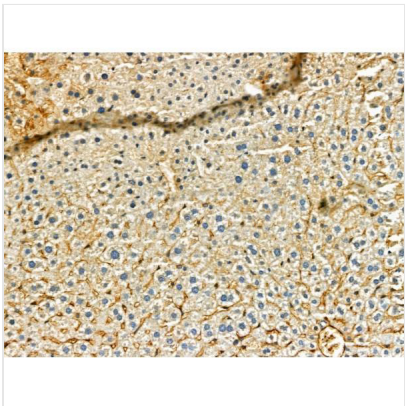
IHC (Immunohistochemistry)
At 1/100 staining Rat heart tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



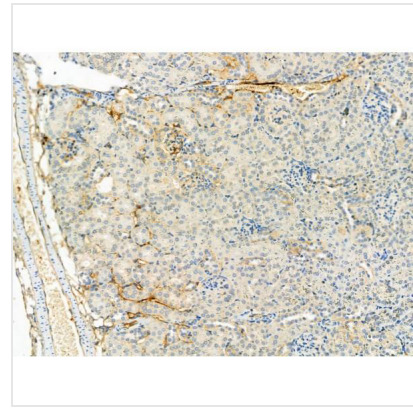
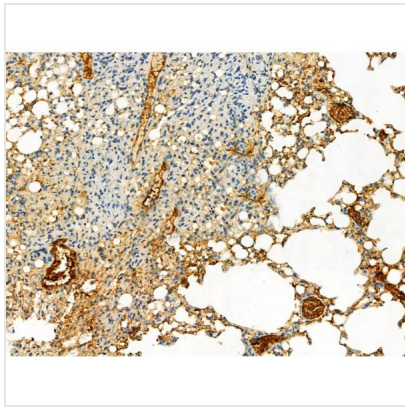
IHC (Immunohistochemistry)
At 1/100 staining Rat skin tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)
At 1/100 staining Mouse heart tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)
At 1/100 staining Mouse liver tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)

At 1/100 staining Mouse lung tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.

IHC (Immunohistochemistry)

Staining Mouse kidney tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-ULK1 antibody

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. May also phosphorylate SESN2 and SQSTM1 to regulate autophagy.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4507831
NCBI GeneID	8408
NCBI Accession #	NP_003556
NCBI GenBank Nucleotide #	NM_003565.2
UniProt Accession #	O75385 ; Q9UQ28
Molecular Weight	Predicted: 116 kDa Observed: 105 kDa
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
NCBI Protein Information	serine/threonine-protein kinase ULK1; ATG1 autophagy related 1 homolog; autophagy-related protein 1 homolog
UniProt Protein Name	Serine/threonine-protein kinase ULK1
UniProt Gene Name	ULK1
UniProt Synonym Gene Names	KIAA0722; ATG1; hATG1
UniProt Entry Name	ULK1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/ulk1-antibody-western-blot-immunohistochemistry-peptide-elisa-elisa/31359>