

## ULK1 Antibody (Center S317)

Peptide Affinity Purified Rabbit Polyclonal Antibody (Pab)  
Catalog # AP19250C-400 □

### Specification

#### ULK1 Antibody (Center S317) - Product info

Application	WB
Primary Accession	<a href="#">Q75385</a>
Other Accession	<a href="#">NP_003556.1</a>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit Ig
Clone Names	RB40756

#### ULK1 Antibody (Center S317) - Additional info

Gene ID **8408**

#### Other Names

Serine/threonine-protein kinase ULK1, Autophagy-related protein 1 homolog, ATG1, hATG1, Unc-51-like kinase 1, ULK1, KIAA0722

#### Target/Specificity

This ULK1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 296-322 amino acids from the Central region of human ULK1.

#### Dilution

WB~1:2000

#### Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

#### Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

#### Precautions

ULK1 Antibody (Center S317) is for research use only and not for use in diagnostic or therapeutic procedures.

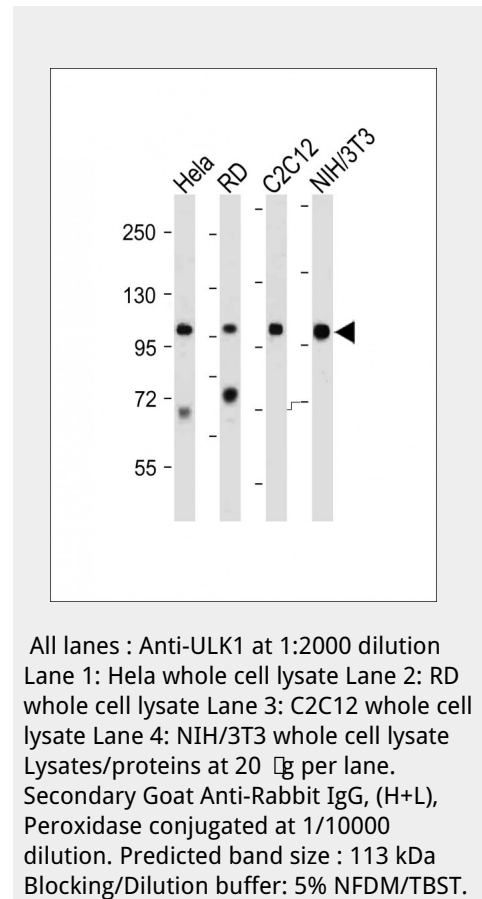
#### ULK1 Antibody (Center S317) - Protein Information

Name **ULK1**

Synonyms **KIAA0722**

#### 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 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 (PubMed:<a href="http://www.uniprot.org/citations/25040165" target="\_blank">25040165</a>).

#### Cellular 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

#### Tissue Location

Ubiquitously expressed. Detected in the following adult tissues: skeletal muscle, heart, pancreas, brain, placenta, liver, kidney, and lung

### ULK1 Antibody (Center S317) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [□Western Blot](#)
- [□Blocking Peptides](#)
- [□Dot Blot](#)
- [□Immunohistochemistry](#)
- [□Immunofluorescence](#)
- [□Immunoprecipitation](#)
- [□Flow Cytometry](#)
- [□Cell Culture](#)

### ULK1 Antibody (Center S317) - Background

ULK1 is involved in autophagy. Required for autophagosome formation (By similarity). Target of the TOR kinase signaling pathway that regulates autophagy through the control of phosphorylation status of ATG13/KIAA0652 and ULK1, and the regulation of the ATG13-ULK1-RB1CC1 complex (By similarity). Phosphorylates ATG13/KIAA0652. Involved in axon growth (By similarity). Plays an essential role in neurite extension of cerebellar granule cells (By similarity).

### ULK1 Antibody (Center S317) - References

Mercer, C.A., et al. Autophagy 5(5):649-662(2009) Ganley, I.G., et al. J. Biol. Chem. 284(18):12297-12305(2009) Jung, C.H., et al. Mol. Biol. Cell 20(7):1992-2003(2009) Hosokawa, N., et al. Mol. Biol. Cell 20(7):1981-1991(2009) Chan, E.Y. Sci Signal 2 (84), PE51 (2009) :