ARG54811
anti-ULK1 / ATG1 antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes ULK1 / ATG1
Tested Reactivity	Hu
Tested Application	ICC/IF, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	ULK1 / ATG1
Antigen Species	Human
Immunogen	KLH-conjugated synthetic peptide corresponding to aa. 642-672 of Human ULK1 / ATG1.
Conjugation	Un-conjugated
Alternate Names	ATG1A; Unc51.1; Autophagy-related protein 1 homolog; ATG1; Unc-51-like kinase 1; EC 2.7.11.1; hATG1; UNC51; Serine/threonine-protein kinase ULK1

Application Instructions

Application table

Application	Dilution
ICC/IF	1:100
WB	1:1000

Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.
Positive Control	A2058
Calculated Mw	113 kDa

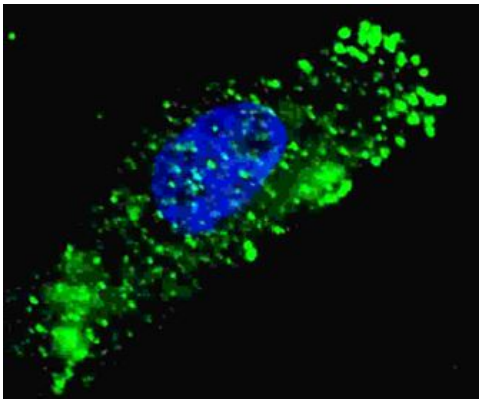
Properties

Form	Liquid
Purification	Purification with Protein G.
Buffer	PBS and 0.09% (W/V) Sodium azide
Preservative	0.09% (W/V) Sodium azide
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

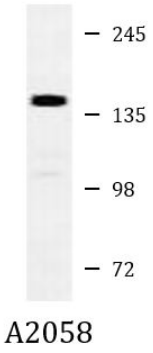
Database links	GeneID: 8408 Human Swiss-port # O75385 Human
Gene Symbol	ULK1
Gene Full Name	unc-51 like autophagy activating kinase 1
Function	Serine/threonine-protein kinase involved in autophagy in response to starvation. Acts upstream of phosphatidylinositol 3-kinase PIK3C3 to regulate the formation 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. [UniProt]
Research Area	Cell Biology and Cellular Response antibody; Cell Death antibody; Metabolism antibody; Neuroscience antibody; Signaling Transduction antibody
Cellular Localization	Cytoplasm, cytosol. Preautophagosomal structure. Note=Under starvation conditions, is localized to puncate structures primarily representing the isolation membrane that sequesters a portion of the cytoplasm resulting in the formation of an autophagosome

Images



ARG54811 anti-ULK1 / ATG1 antibody ICC/IF image

Immunofluorescence: U251 cells were treated with Chloroquine (50 µM, 16h), then fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.2%, 30 min). U251 cells were then stained with ARG54811 anti-ULK1 / ATG1 antibody (green) at 1:100 dilution, 2 h at room temperature. Nuclei were counterstained with Hoechst 33342 (blue) (10 µg/ml, 5 min). ULK1 immunoreactivity is localized to autophagic vacuoles in the cytoplasm of U251 cells.



ARG54811 anti-ULK1 / ATG1 antibody WB image

Western blot: A2058 cell lysate stained with ARG54811 anti-ULK1 / ATG1 antibody.