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**Product Name: Phospho-ULK1 (S556) (5G1) Rabbit Monoclonal Antibody****Catalog #: AMRe06045**

For research use only.

**Summary**

<b>Description</b>	Recombinant rabbit monoclonal antibody
<b>Host</b>	Rabbit
<b>Application</b>	WB
<b>Reactivity</b>	Human, Mouse
<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Phosphorylated
<b>Isotype</b>	IgG
<b>Clonality</b>	Monoclonal
<b>Form</b>	Liquid
<b>Concentration</b>	0.5mg/ml. The concentration of this product may be batch-dependent.
<b>Storage</b>	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
<b>Shipping</b>	Ice bags
<b>Buffer</b>	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% New type preservative N and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Purification</b>	Affinity purification

**Application**

<b>Dilution Ratio</b>	WB 1:2000-1:20000
<b>Molecular Weight</b>	113kDa

**Antigen Information**

<b>Gene Name</b>	ULK1
<b>Alternative Names</b>	ATG1; ATG1A; hATG1; ULK1; UNC51;
<b>Gene ID</b>	8408.0
<b>SwissProt ID</b>	O75385
<b>Immunogen</b>	A synthetic phosphopeptide corresponding to residues surrounding Ser556 of human ULK1

**Background**

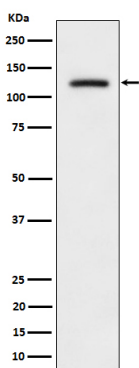
Serine/threonine-protein kinase involved in autophagy in response to starvation. Acts upstream of phosphatidylinositol 3-

kinase PIK3C3 to regulate the formation of autophagophores, the precursors of autophagosomes. Serine/threonine-protein kinase involved in autophagy in response to starvation (PubMed:18936157, PubMed:21460634, PubMed:21795849, PubMed:23524951, PubMed:25040165, PubMed:31123703). Acts upstream of phosphatidylinositol 3-kinase PIK3C3 to regulate the formation of autophagophores, the precursors of autophagosomes (PubMed:18936157, PubMed:21460634, PubMed:21795849, PubMed:25040165). 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 (PubMed:21795849). 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 (PubMed:21460634). May phosphorylate ATG13/KIAA0652 and RPTOR; however such data need additional evidences (PubMed:18936157). Plays a role early in neuronal differentiation and is required for granule cell axon formation (PubMed:11146101). May also phosphorylate SESN2 and SQSTM1 to regulate autophagy (PubMed:25040165). Phosphorylates FLCN, promoting autophagy (PubMed:25126726). Phosphorylates AMBRA1 in response to autophagy induction, releasing AMBRA1 from the cytoskeletal docking site to induce autophagosome nucleation (PubMed:20921139).

## Research Area

Signal Transduction; Protein Phosphorylation; Ser / Thr Kinases; Neuroscience; Neurology process; Neurogenesis; Cardiovascular; Heart; Autophagy; Metabolism; Pathways and Processes; Mitochondrial Metabolism; Mitophagy fission and fusion

## Image Data



Western blot analysis of Phospho-ULK1 (S556) expression in 293T transfected with ULK1 cell lysate.