

## Product datasheet

# Anti-ULK1 (phospho S623) antibody [EPR6154] ab131210

Recombinant RabMAb

1 Image

### Overview

<b>Product name</b>	Anti-ULK1 (phospho S623) antibody [EPR6154]
<b>Description</b>	Rabbit monoclonal [EPR6154] to ULK1 (phospho S623)
<b>Host species</b>	Rabbit
<b>Specificity</b>	ab131210 only detects ULK1 when phosphorylated at Serine 623.
<b>Tested applications</b>	<b>Suitable for:</b> WB <b>Unsuitable for:</b> Flow Cyt, ICC, IHC-P or IP
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Human
<b>Immunogen</b>	Synthetic peptide from a region surrounding phosphorylated Serine 623 of Human ULK1 (O75385)
<b>Positive control</b>	ULK1 transfected 293T cell lysate treated with Lambda phosphatase
<b>General notes</b>	Rat: We have preliminary internal testing data to indicate this antibody may not react with this species. Please contact us for more information.

This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free production

For more information [see here](#).

Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to [RabMAb<sup>®</sup> patents](#).

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
<b>Storage buffer</b>	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 9% PBS, 40% Glycerol, 0.05% BSA, 50% Tissue culture supernatant

<b>Purity</b>	Tissue culture supernatant
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR6154
<b>Isotype</b>	IgG

## Applications

Our [Abpromise guarantee](#) covers the use of **ab131210** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000 - 1/10000. Predicted molecular weight: 112 kDa.

**Application notes**                      Is unsuitable for Flow Cyt, ICC, IHC-P or IP.

## Target

**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:25040165).

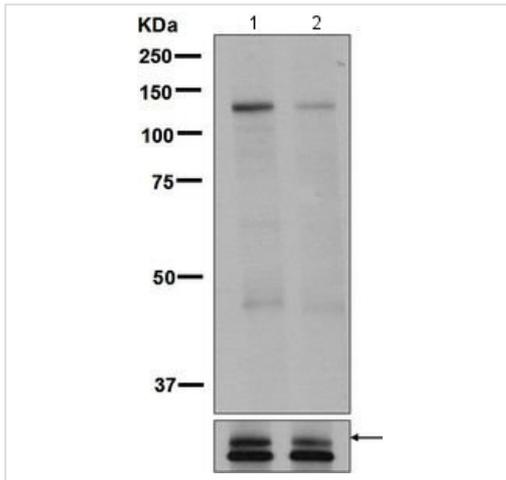
**Tissue specificity**                              Ubiquitously expressed. Detected in the following adult tissues: skeletal muscle, heart, pancreas, brain, placenta, liver, kidney, and lung.

**Sequence similarities**                              Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. APG1/unc-51/ULK1 subfamily.  
Contains 1 protein kinase domain.

**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.

**Cellular localization**                              Cytoplasm, cytosol. Preautophagosomal structure. 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.

## Images



Western blot - Anti-ULK1 (phospho S623) antibody [EPR6154] (ab131210)

**All lanes :** Anti-ULK1 (phospho S623) antibody [EPR6154] (ab131210) at 1/1000 dilution

**Lane 1 :** ULK1 transfected 293T cell lysate - untreated

**Lane 2 :** ULK1 transfected 293T cell lysate - treated with Lambda phosphatase

Lysates/proteins at 10 µg per lane.

**Predicted band size:** 112 kDa

Bottom pannel shows detection of total ULK1 performed using a general anti ULK1 antibody.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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