For Research Use Only

Phospho-ULK1 (Thr468) Polyclonal antibody

Catalog Number:29006-1-AP

3 Publications

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Basic Information

Catalog Number:
29006-1-AP

Size:
450 ug/ml

Source:
Rabbit

Isotype:
IgG

GenBank Accession Number:
NM_003565

GeneID (NCBI):
8408

UNIPROT ID:
O75385

Full Name:
unc-51-like kinase 1 (C. elegans)

Observed MW:
130-140 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB 1:1000-1:8000
IF/ICC 1:50-1:500

Applications

Tested Applications:
WB, IF/ICC, ELISA

Cited Applications:
WB

Species Specificity:
human

Cited Species:
human, rat

Positive Controls:

WB : λ phosphatase treated HeLa cells,

IF/ICC : HeLa cells,

Background Information

Unc-51-like-kinase 1 (ULK1) is a target of both the mechanistic target of rapamycin (mTOR) and AMP activated protein kinase (AMPK), whose role is to facilitate the initiation of autophagy in response to starvation. ULK1 is phosphorylated on serine 638 and 758 sites by mTOR in nutrient-rich conditions, inhibiting ULK1 activation by disrupting its binding to AMPK. Upon glucose starvation, dissociation of mTOR from ULK1 and phosphorylation by AMPK leads to the activation of ULK1 activity. S467, S556, and T574 are sites responsible for regulating mitochondrial homeostasis during starvation. (PMID: 30517873, PMID: 21258367)

Notable Publications

Author	Pubmed ID	Journal	Application
Yi Zhou	35934162	Brain Res Bull	WB
Junli Zhang	39502521	Anal Cell Pathol (Amst)	WB
Yingwan Zhang	38477077	Environ Toxicol	WB

Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
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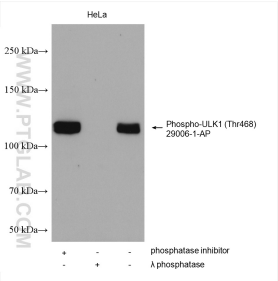
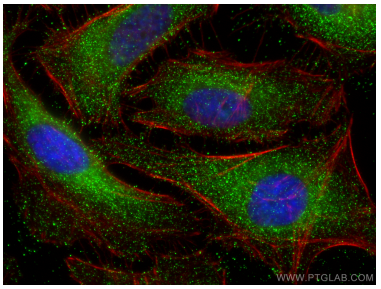
Selected Validation Data



Non-treated HeLa, phosphatase inhibitor treated and λ phosphatase treated HeLa cells were subjected to SDS PAGE followed by western blot with 29006-1-AP (Phospho-ULK1 (Thr468) antibody) at dilution of 1:4000 incubated at room temperature for 1 hours.



Immunofluorescent analysis of (-20°C Ethanol) fixed HeLa cells using Phospho-ULK1 (Thr468) antibody (29006-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-Phalloidin (red), CL594-Phalloidin (red).