For Research Use Only

Phospho-mTOR (Ser2448) Recombinant antibody

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Antibodies | ELISA kits | Proteins
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Catalog Number:80596-1-RR 16 Publications

Basic Information

Catalog Number:
80596-1-RR

Size:
1000 μg/ml

Source:
Rabbit

Isotype:
IgG

GenBank Accession Number:
BC117166

GeneID (NCBI):
2475

Full Name:
FK506 binding protein 12-rapamycin associated protein 1

Calculated MW:
289 kDa

Observed MW:
250-289 kDa

Purification Method:
Protein A purification

CloneNo.:
3L18

Recommended Dilutions:
WB 1:5000-1:50000
IF 1:500-1:2000

Applications

Tested Applications:
IF/ICC, WB, ELISA

Cited Applications:
WB

Species Specificity:
Human, Rat

Cited Species:
human, rat, mouse, bovine

Positive Controls:

WB : HEK-293 cells, Calyculin A treated HSC-T6 cells, HeLa cells, Calyculin A treated HEK-293 cells, Calyculin A treated HeLa cells

IF : PMA treated HEK-293 cells,

Background Information

MTOR, also named as FRAP1, FRAP, FRAP2 and RAPT1, belongs to the PI3/PI4-kinase family. MTOR is a Ser/Thr protein kinase that functions as an ATP and amino acid sensor to balance nutrient availability and cell growth. MTOR is kinase subunit of both mTORC1 and mTORC2, which regulate cell growth and survival in response to nutrient and hormonal signals. mTORC1 is activated in response to growth factors or amino-acids. mTORC2 is also activated by growth factors, but seems to be nutrient-insensitive. mTORC2 seems to function upstream of Rho GTPases to regulate the actin cytoskeleton, probably by activating one or more Rho-type guanine nucleotide exchange factors. mTORC2 promotes the serum-induced formation of stress-fibers or F-actin. mTOR is phosphorylated at Ser2448 via the PI3 kinase/Akt signaling pathway and autophosphorylated at Ser2481. mTOR plays a key role in cell growth and homeostasis and may be abnormally regulated in tumors.

Notable Publications

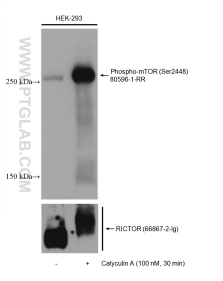
Author	Pubmed ID	Journal	Application
Ying-Ying Li	36160409	Front Pharmacol	WB
Guopeng Chen	36056952	J Cancer Res Clin Oncol	WB
Ying-Ying Li	36341817	J Ethnopharmacol	WB

Storage

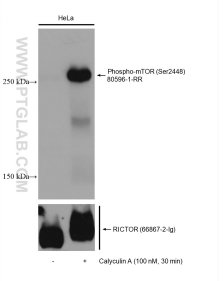
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

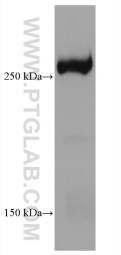
Selected Validation Data



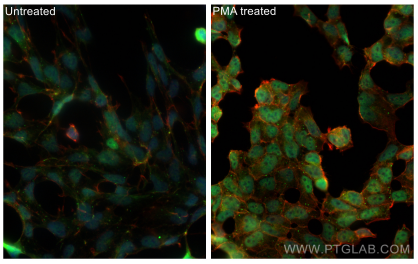
Non-treated and Calyculin A treated HEK-293 cells were subjected to SDS PAGE followed by western blot with 80596-1-RR (Phospho-mTOR (Ser2448) antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with RICTOR antibody (66867-2-Ig) subsequently.



Non-treated and Calyculin A treated HeLa cells were subjected to SDS PAGE followed by western blot with 80596-1-RR (Phospho-mTOR (Ser2448) antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with RICTOR antibody (66867-2-Ig) subsequently.



Calyculin A treated HSC-T6 cells were subjected to SDS PAGE followed by western blot with 80596-1-RR (Phospho-mTOR (Ser2448) antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



Immunofluorescent analysis of (4% PFA) fixed PMA treated HEK-293 cells using Phospho-mTOR (Ser2448) antibody (80596-1-RR, Clone: 3L18) at dilution of 1:1000 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-phalloidin (red).