

For Research Use Only

Phospho-mTOR (Ser2448) Recombinant antibody

Catalog Number: 80596-1-RR

26 Publications



Basic Information

Catalog Number:

80596-1-RR

Size:

100ul, Concentration: 1000 ug/ml by Nanodrop;

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/ICC: 1:500-1:2000

FC (Intra): 0.13 ug per 10⁶ cells in a 100 µl suspension

Applications

Tested Applications:

WB, IF/ICC, FC (Intra), ELISA

Cited Applications:

WB, IF

Species Specificity:

human, mouse, rat

Cited Species:

human, mouse, rat, bovine

Positive Controls:

WB: HEK-293 cells, HeLa cells, Calyculin A treated HSC-T6 cells, Calyculin A treated NIH/3T3 cells, Calyculin A treated HEK-293 cells, Calyculin A treated HeLa cells

IF/ICC: PMA treated HEK-293 cells,

FC (Intra): Calyculin A 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, pH7.3

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

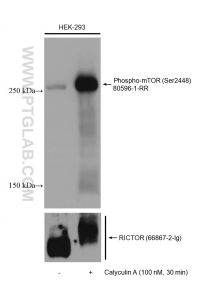
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

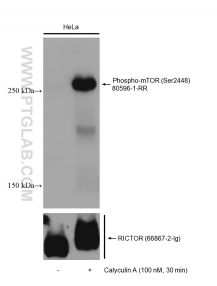
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

Selected Validation Data



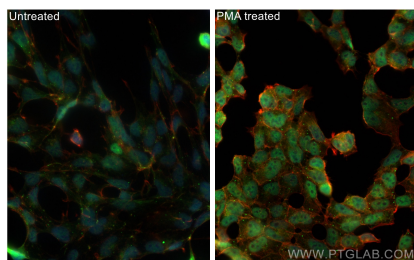
Non-treated and Calyculin A treated HEK-293 cells were subjected to SDS PAGE followed by western blot with 80596-1-RR (Phospho-mTOR (Ser2448) antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with RICTOR antibody (66867-2-Ig) subsequently.



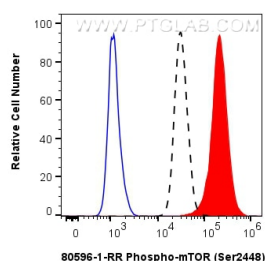
Non-treated and Calyculin A treated HeLa cells were subjected to SDS PAGE followed by western blot with 80596-1-RR (Phospho-mTOR (Ser2448) antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with RICTOR antibody (66867-2-Ig) subsequently.



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).



1X10⁶ HEK-293 cells untreated (dashed lines) or treated with Calyculin A which intracellularly stained with 0.13 ug Phospho-mTOR (Ser2448) Recombinant antibody (80596-1-RR, Clone:3L18) and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2)(red), or 0.13 ug Rabbit IgG Isotype Control Recombinant Antibody (98136-1-RR, Clone: 240953C9) (blue). Cells were fixed with 4% PFA and permeabilized with 90% MeOH.