

For Research Use Only

# Phospho-mTOR (Ser2448) Monoclonal antibody, PBS Only



Catalog Number: 67778-1-PBS

## Basic Information

<b>Catalog Number:</b> 67778-1-PBS	<b>GenBank Accession Number:</b> BC117166	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 100ug, Concentration: 1mg/ml by Nanodrop;	<b>GeneID (NCBI):</b> 2475	<b>CloneNo.:</b> 2A12G3
<b>Source:</b> Mouse	<b>Full Name:</b> FK506 binding protein 12-rapamycin associated protein 1	
<b>Isotype:</b> IgG2b	<b>Calculated MW:</b> 289 kDa	
	<b>Observed MW:</b> 289 kDa	

## Applications

**Tested Applications:**  
ELISA, IF/ICC, IHC, WB

**Species Specificity:**  
rat, mouse, human

## 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.

## Storage

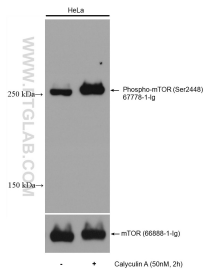
**Storage:**  
Store at -80°C.

**Storage Buffer:**  
PBS Only

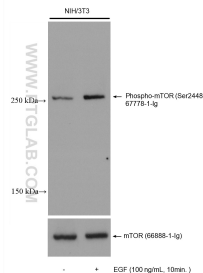
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)      E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
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This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

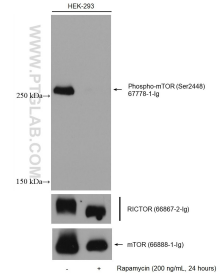
## Selected Validation Data



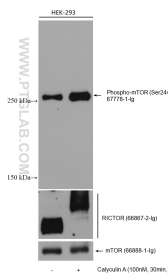
Non-treated and Calyculin A treated HeLa cells were subjected to SDS PAGE followed by western blot with 67778-1-Ig (Phospho-mTOR (Ser2448) antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 67778-1-PBS in a different storage buffer formulation.



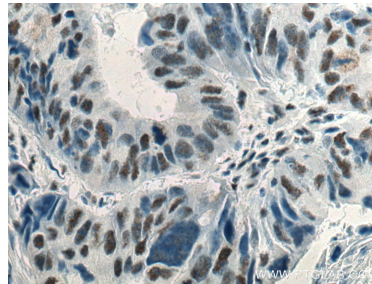
Non-treated and EGF treated NIH/3T3 cells were subjected to SDS PAGE followed by western blot with 67778-1-Ig (Phospho-mTOR (Ser2448) antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 67778-1-PBS in a different storage buffer formulation.



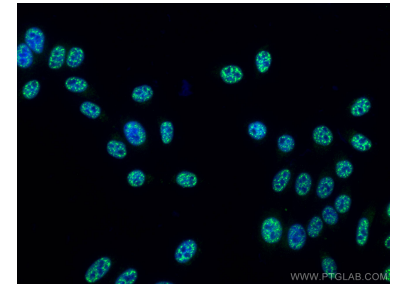
Non-treated and Rapamycin treated HEK-293 cells were subjected to SDS PAGE followed by western blot with 67778-1-Ig (Phospho-mTOR (Ser2448) antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with RICTOR antibody (66867-2-Ig) and mTOR antibody (66888-1-Ig) subsequently. This data was developed using the same antibody clone with 67778-1-PBS in a different storage buffer formulation.



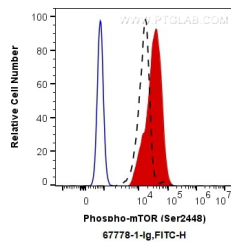
Non-treated and Calyculin A treated HEK-293 cells were subjected to SDS PAGE followed by western blot with 67778-1-Ig (Phospho-mTOR (Ser2448) antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with RICTOR antibody (66867-2-Ig) and mTOR antibody (66888-1-Ig) subsequently. This data was developed using the same antibody clone with 67778-1-PBS in a different storage buffer formulation.



Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 67778-1-Ig (Phospho-mTOR (Ser2448) antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 67778-1-PBS in a different storage buffer formulation.



Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using Phospho-mTOR (Ser2448) antibody (67778-1-Ig, Clone: 2A12G3) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L). This data was developed using the same antibody clone with 67778-1-PBS in a different storage buffer formulation.



1X10<sup>6</sup> Calyculin A treated HeLa cells were intracellularly stained with 0.5 ug Anti-Human Phospho-mTOR (Ser2448) (67778-1-Ig, Clone:2A12G3) and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L) at dilution 1:1000 (red), or 0.5 ug Control Antibody. Cells were fixed with 4% PFA and permeabilized with 90% MeOH. This data was developed using the same antibody clone with 67778-1-PBS in a different storage buffer formulation.