

For Research Use Only

# CoraLite®594-conjugated Phospho-mTOR (Ser2448) Monoclonal antibody

Catalog Number:CL594-67778



## Basic Information

<b>Catalog Number:</b> CL594-67778	<b>GenBank Accession Number:</b> BC117166	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 100ul , Concentration: 1000 ug/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>Recommended Dilutions:</b> IF/ICC 1:50-1:500
<b>Isotype:</b> IgG2b	<b>Calculated MW:</b> 289 kDa	<b>Excitation/Emission maxima wavelengths:</b> 588 nm / 604 nm

## Applications

<b>Tested Applications:</b> IF/ICC, FC (Intra)	<b>Positive Controls:</b> IF/ICC : HepG2 cells,
<b>Species Specificity:</b> human, mouse	

## 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.

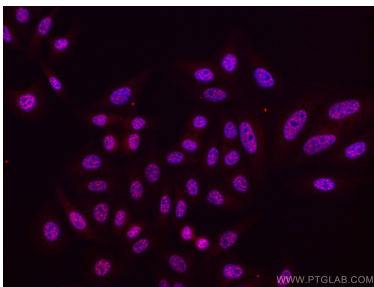
## Storage

**Storage:**  
Store at -20°C. Avoid exposure to light. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 50% Glycerol, 0.05% Proclin300, 0.5% BSA, pH 7.3.  
Aliquoting is unnecessary for -20°C storage

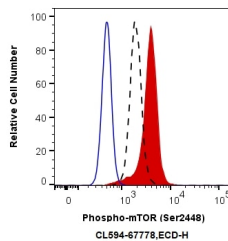
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## Selected Validation Data



Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using CoraLite®594 Phospho-mTOR (Ser2448) antibody (CL594-67778, Clone: 2A12G3 ) at dilution of 1:100. DAPI (blue)



1X10<sup>6</sup> Calyculin A treated HeLa cells were intracellularly stained with 0.13 ug CoraLite®594 Anti-Human Phospho-mTOR (Ser2448) (CL594-67778, Clone:2A12G3) (red), or 0.13 ug Control Antibody. Cells were fixed with 4% PFA and permeabilized with 90% MeOH.