

For Research Use Only

# CoraLite® Plus 647-conjugated Phospho-mTOR (Ser2448) Recombinant antibody



Catalog Number: **CL647-80596**

## Basic Information

|                                       |  |   |
|---------------------------------------|--|---|
| <b>Catalog Number:</b><br>CL647-80596 | <b>GenBank Accession Number:</b><br>BC117166                                 | <b>Purification Method:</b><br>Protein A purification             |
| <b>Size:</b><br>1000 µg/ml            | <b>GeneID (NCBI):</b><br>2475  | <b>CloneNo.:</b><br>3L18  |
| <b>Source:</b><br>Rabbit              | <b>Full Name:</b><br>FK506 binding protein 12-rapamycin associated protein 1 | <b>Recommended Dilutions:</b><br>IF 1:500-1:2000                  |
| <b>Isotype:</b><br>IgG                | <b>Calculated MW:</b><br>289 kDa   | <b>Excitation/Emission maxima wavelengths:</b><br>654 nm / 674 nm |
|                                       | <b>Observed MW:</b><br>250-289 kDa   |   |

## Applications

### Tested Applications:

FC (Intra), IF/ICC

### Species Specificity:

Human, Rat

### Positive Controls:

IF : Rapamycin treated HeLa 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.

## 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

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

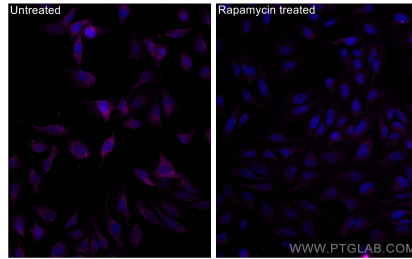
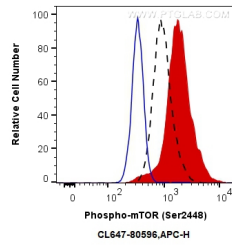
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## Selected Validation Data



1X10<sup>6</sup> HeLa cells untreated (dashed lines) or treated with Calyculin A (red) were intracellularly stained with 0.13 ug CoraLite® Plus 647 Anti-Human Phospho-mTOR (Ser2448) (CL647-80596, Clone:3L18) (red), or 0.13 ug Control Antibody (blue). Cells were fixed with 4% PFA and permeabilized with 80% MeOH.

Immunofluorescent analysis of (4% PFA) fixed Rapamycin treated HeLa cells using CoraLite® Plus 647 Phospho-mTOR (Ser2448) antibody (CL647-80596, Clone: 3L18 ) at dilution of 1:1000.