

For Research Use Only

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

Catalog Number: CL647-80596



Basic Information

Catalog Number: CL647-80596	GenBank Accession Number: BC117166	Purification Method: Protein A purification
Size: 100ul , Concentration: 1000 ug/ml by Nanodrop;	GeneID (NCBI): 2475	CloneNo.: 3L18
Source: Rabbit	Full Name: FK506 binding protein 12-rapamycin associated protein 1	Recommended Dilutions: IF/ICC: 1:500-1:2000 FC (Intra): 0.13 ug per 10 ⁶ cells in a 100 µl suspension
Isotype: IgG	Calculated MW: 289 kDa Observed MW: 250-289 kDa	Excitation/Emission maxima wavelengths: 654 nm / 674 nm

Applications

Tested Applications: IF/ICC, FC (Intra)	Positive Controls:
Species Specificity: Human, Rat	IF/ICC : Rapamycin treated HeLa cells, FC (Intra) : Calyculin A treated HeLa cells, 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.

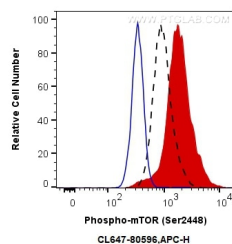
Storage

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, pH7.3
Aliquoting is unnecessary for -20°C storage

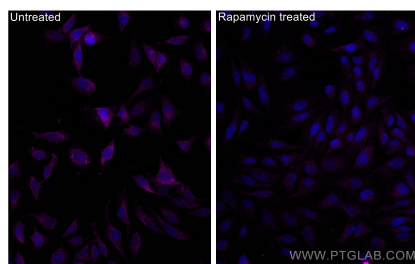
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
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Selected Validation Data



1X10⁶ 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.