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Phospho-mTOR-S2448 Rabbit mAb

Catalog No.: AP1413 Recombinant 1 Publications

Basic Information

Observed MW
310kDa/289kDa

Calculated MW
289kDa

Category
Primary antibody

Applications
WB,IF/ICC,ELISA

Cross-Reactivity
Human, Mouse, Rat

CloneNo number
ARC59819

Background

The protein encoded by this gene belongs to a family of phosphatidylinositol kinase-related kinases. These kinases mediate cellular responses to stresses such as DNA damage and nutrient deprivation. This kinase is a component of two distinct complexes, mTORC1, which controls protein synthesis, cell growth and proliferation, and mTORC2, which is a regulator of the actin cytoskeleton, and promotes cell survival and cell cycle progression. This protein acts as the target for the cell-cycle arrest and immunosuppressive effects of the FKBP12-rapamycin complex. Inhibitors of mTOR are used in organ transplants as immunosuppressants, and are being evaluated for their therapeutic potential in SARS-CoV-2 infections. Mutations in this gene are associated with Smith-Kingsmore syndrome and somatic focal cortical dysplasia type II. The ANGPTL7 gene is located in an intron of this gene.

Recommended Dilutions

WB	1:500 - 1:1000
IF/ICC	1:100-1:500ELISARecommended starting concentration is 1 μg/mL. Please optimize the concentration based on your specific assay requirements.

Immunogen Information

Gene ID
2475

Swiss Prot
P42345

Immunogen
Synthetic peptide. This information is considered to be commercially sensitive.

Synonyms
SKS; FRAP; FRAP1; FRAP2; RAFT1; RAPT1; Phospho-mTOR-S2448

Contact

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Product Information

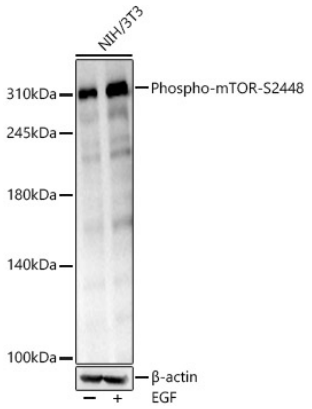
Source
Rabbit

Isotype
IgG

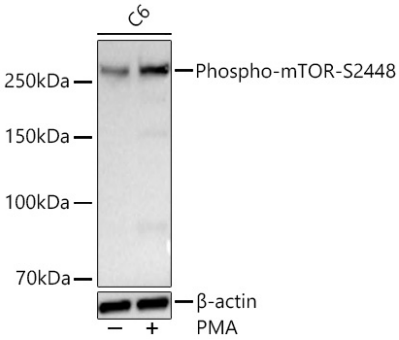
Purification
Affinity purification

Storage
Store at -20℃. Avoid freeze / thaw cycles.
Buffer: PBS with 0.09% Sodium azide,0.05% BSA,50% glycerol,pH7.3.

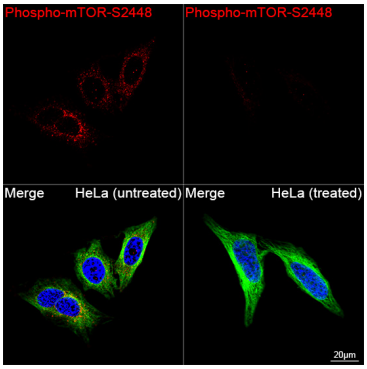
Validation Data



Western blot analysis of lysates from NIH/3T3 cells, using Phospho-mTOR-S2448 Rabbit mAb (AP1413) at 1:1000 dilution. NIH/3T3 cells were treated with EGF (100 ng/ml) at 37℃ for 30 minutes after serum-starvation overnight.
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.
Lysates/proteins: 25µg per lane.
Blocking buffer: 3% nonfat dry milk in TBST.
Detection: ECL Enhanced Kit (RM00021).
Exposure time: 120s.



Western blot analysis of lysates from C6 cells using Phospho-mTOR-S2448 Rabbit mAb (AP1413) at 1:1000 dilution incubated overnight at 4℃. C6 cells were treated with PMA (100 nM) at 37℃ for 30 minutes after serum-starvation overnight.
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.
Lysates/proteins: 30 µg per lane.
Blocking buffer: 3% nonfat dry milk in TBST.
Detection: ECL Basic Kit (RM00020).
Exposure time: 10s.



Confocal imaging of HeLa cells (untreated) and HeLa cells (treated with rapamycin) using Phospho-mTOR-S2448 Rabbit mAb (AP1413, dilution 1:300) followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). The cells were counterstained with α-tubulin Mouse mAb (AC012, dilution 1:400) followed by incubation with ABflo® 488-conjugated Goat Anti-Mouse IgG (H+L) Ab (AS076, dilution 1:500) (Green). DAPI was used for nuclear staining (Blue). Objective: 100x.