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Phospho-mTOR-S2448 Rabbit mAb

Catalog No.: AP1657 Recombinant

Basic Information

Observed MW
289 kDa

Calculated MW
289 kDa

Category
Primary antibody

Applications
WB,IF/ICC,ELISA

Cross-Reactivity
Human, Mouse, Rat

CloneNo number
ARC3845

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	1:2000 - 1:10000
IF/ICC	1:100 - 1:400
ELISA	Recommended starting concentration is 1 μg/mL. Please optimize the concentration based on your specific assay requirements. For high-ratio antibody dilutions (≥1:10000)，a sequential dilution method is strongly recommended to ensure measurement accuracy.

Immunogen Information

Gene ID
2475

Swiss Prot
P42345

Immunogen
This information is considered to be commercially sensitive.

Synonyms

Product Information

Source
Rabbit

Isotype
IgG

Purification
Affinity purification

Storage
Store at -20℃

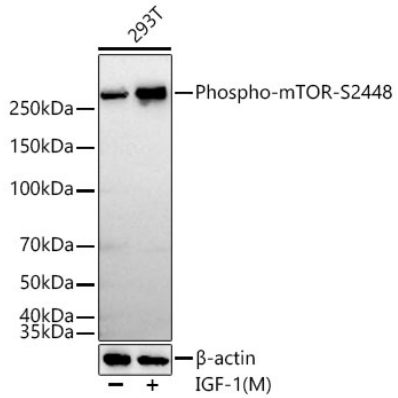
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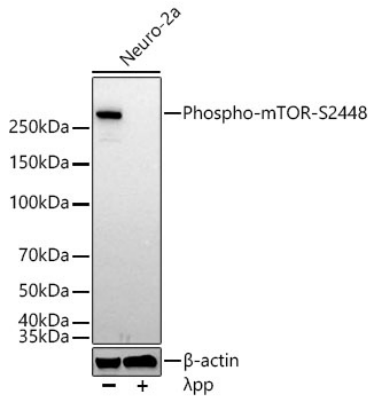
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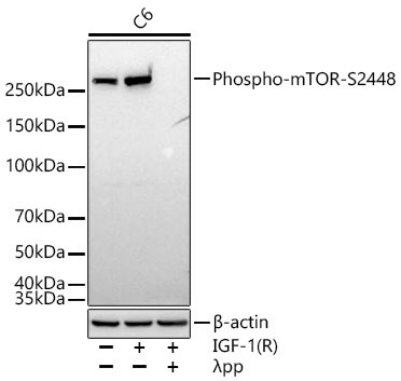
Validation Data



Western blot analysis of lysates from 293T cells using Phospho-mTOR-S2448 Rabbit mAb (AP1657) at 1:10000 dilution incubated overnight at 4℃. 293T cells were treated with IGF-1(M) (200 ng/mL)at 37℃ for 30 minutes after serum-starvation overnight and 1 hour of amino acid deprivation.|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: 90 s.

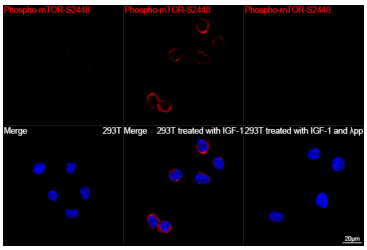


Western blot analysis of lysates from Neuro-2a cells using Phospho-mTOR-S2448 Rabbit mAb (AP1657) at 1:10000 dilution incubated overnight at 4℃. Neuro-2a cells were treated with λpp (2 U/µL) at 30℃ for 1 hour.|Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.|Lysates/proteins: 30 µg per lane.| Blocking buffer: 3% nonfat dry milk in TBST.| Detection: ECL Basic Kit (RM00020).| Exposure time: 90 s.

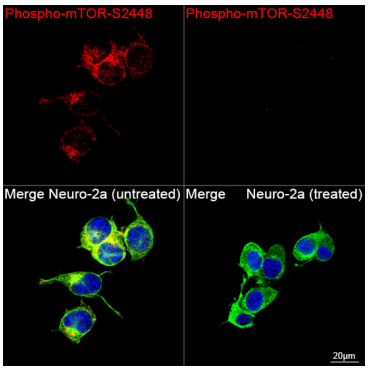


Western blot analysis of lysates from C6 cells using Phospho-mTOR-S2448 Rabbit mAb (AP1657) at 1:10000 dilution incubated overnight at 4℃. C6 cells were treated with IGF-1(R) (200 ng/mL)at 37℃ for 30 minutes and λpp (2 U/µL) at 30℃ for 1 hour after serum-starvation overnight and 1 hour of amino acid deprivation.|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: 90 s.

Validation Data



Confocal imaging of 293T cells (treated with PMA), 293T cells (treated with PMA and λPP), and 293T cells (untreated) using Phospho-mTOR-S2448 Rabbit mAb (AP1657, dilution 1:200) followed by a further incubation with Cy3-conjugated Goat anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). DAPI was used for nuclear staining (Blue). Objective: 100x.



Confocal imaging of Neuro-2a cells (untreated) and Neuro-2a cells (treated with λPP) using Phospho-mTOR-S2448 Rabbit mAb (AP1657, dilution 1:200) followed by a further incubation with Cy3-conjugated 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 (AS038, dilution 1:800) (Green). DAPI was used for nuclear staining (Blue). Objective: 100x.