Anti-Phospho-mTOR (S2481) Antibody [JE59-62] HA721632

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB
Molecular Wt:	Predicted band size: 289 kDa
Clone number:	JE59-62

Description: The mammalian target of rapamycin (mTOR), also referred to as the mechanistic target of rapamycin, and sometimes called FK506-binding protein 12-rapamycin-associated protein 1 (FRAP1), is a kinase that in humans is encoded by the MTOR gene. mTOR is a member of the phosphatidylinositol 3-kinase-related kinase family of protein kinases. mTOR links with other proteins and serves as a core component of two distinct protein complexes, mTOR complex 1 and mTOR complex 2, which regulate different cellular processes. In particular, as a core component of both complexes, mTOR functions as a serine/threonine protein kinase that regulates cell growth, cell proliferation, cell motility, cell survival, protein synthesis, autophagy, and transcription. As a core component of mTORC2, mTOR also functions as a tyrosine protein kinase that promotes the activation of insulin receptors and insulin-like growth factor 1 receptors. mTORC2 has also been implicated in the control and maintenance of the actin cytoskeleton.

Immunogen: Synthetic phosphopeptide corresponding to residues surrounding Ser2481 of human mTOR.

Positive control: HeLa whole cell lysate, HeLa starved overnight then treated with 200nM PMA for 4 hours whole cell lysate.

Subcellular location: Endoplasmic reticulum membrane, Golgi apparatus membrane, Mitochondrion outer membrane, Lysosome, Cytoplasm, Nucleus, Microsome membrane, Lysosome membrane, Cytoplasmic vesicle, phagosome.

Database links: SwissProt: P42345 Human

Recommended Dilutions:

WB	1:5,000

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

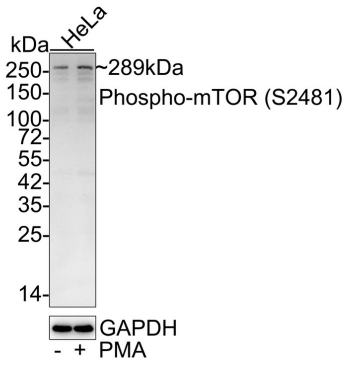

Fig1: Western blot analysis of Phospho-mTOR (S2481) on different lysates with Rabbit anti-Phospho-mTOR (S2481) antibody (HA721632) at 1/5,000 dilution.

Lane 1: HeLa whole cell lysate
Lane 2: HeLa starved overnight then treated with 200nM PMA for 4 hours whole cell lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 289 kDa
Observed band size: 289 kDa

Exposure time: 5 minutes;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA721632) at 1/5,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:50,000 dilution was used for 1 hour at room temperature.

Background References

1. Deleyto-Seldas N et al. The mTOR-Autophagy Axis and the Control of Metabolism. Front Cell Dev Biol. 2021 Jul
2. Chen Y et al. Research progress of mTOR inhibitors. Eur J Med Chem. 2020 Dec