

Product Name: KD-Validated Phospho-mTOR (S2481) Recombinant Rabbit Monoclonal Antibody

Catalog #: KVA01000

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000
Molecular Weight	Calculated MW: 288.9kDa

Antigen Information

Gene Name	MTOR
Alternative Names	Mechanistic Target Of Rapamycin Kinase; RAFT1; RAPT1; Rapamycin And FKBP12 Target 1; Mammalian Target Of Rapamycin; FRAP1; FRAP2; FRAP; FK506-Binding Protein 12-Rapamycin Complex-Associated Protein 1; Mechanistic Target Of Rapamycin (Serine/Threonine Kinase); FK506 Binding Protein 12-Rapamycin Associated Protein 2; FKBP12-Rapamycin Complex-Associated Protein 1; Serine/Threonine-Protein Kinase MTOR; Rapamycin Associated Protein FRAP2; FKBP-Rapamycin Associated Protein; Mechanistic Target Of Rapamycin; Rapamycin Target Protein 1; FLJ44809; DJ576K7.1 (FK506 Binding Protein 12-Rapamycin Associated Protein 1); FK506 Binding Protein 12-Rapamycin Associated Protein 1; FKBP12-Rapamycin Complex-Associated Protein; Rapamycin Target

Protein; EC 2.7.11.1; MTOR; SKS

Gene ID 2475.0

SwissProt ID P42345

Immunogen A synthesized peptide derived from human Phospho-mTOR (S2481)

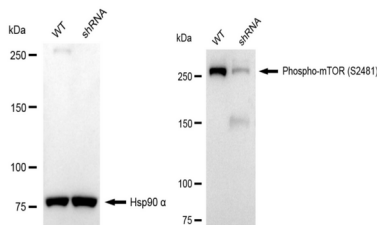
Background

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. [provided by RefSeq, Aug 2020]

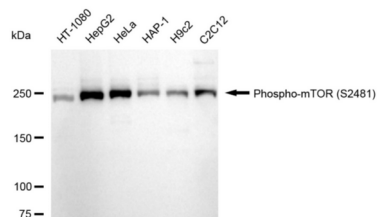
Research Area

Cell Biology, Epigenetics and Nuclear Signaling, Cancer, Cardiovascular, Metabolism, Neuroscience

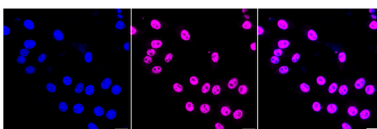
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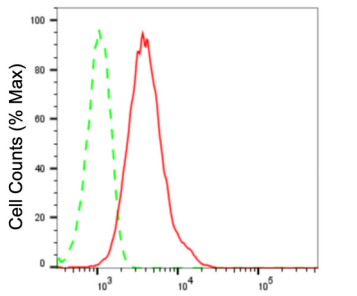
Western blotting analysis using Phospho-mTOR (S2481) antibody (KVA01000). Phospho-mTOR (S2481) expression in wild type (WT) and Phospho-mTOR (S2481) shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with Phospho-mTOR (S2481) antibody (KVA01000, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Western blotting analysis using phospho-mTOR (S2481) antibody (KVA01000). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with phospho-mTOR (S2481) antibody (KVA01000, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Immunocytochemical staining of HepG2 cells with Phospho-mTOR (S2481) antibody (KVA01000, 1:1,000). Nuclei were stained blue with DAPI; Phospho-mTOR (S2481) was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: High. Scale bar: 20 µm.



Flow cytometric analysis of phospho-mTOR (S2481) expression in HepG2 cells using phospho-mTOR (S2481) antibody (KVA01000, 1:2,000). Green, isotype control; red, Phospho-mTOR (S2481).