



mTOR (Phospho Ser2481) Rabbit mAb

Catalog No	YP-rAb-18401
Isotype	IgG
Reactivity	Human,Mouse,Rat
Applications	WB,IF,ELISA
Gene Name	MTOR
Protein Name	Serine/threonine-protein kinase mTOR
Purification Process	Protein A
Specificity	Phospho-mTOR (S2481) Antibody detects endogenous levels of mTOR protein only when phosphorylated at S2481. The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):IHsFI
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
Source	Monoclonal, Rabbit,IgG
Dilution	WB 1:2000-1:10000; IF 1:200-1:1000; ELISA 1:5000-1:20000;
Concentration	0.5 mg/ml
Purity	≥90%
Storage Stability	-15° C to -25° C/1 year(Do not lower than -25° C)
Synonyms	MTOR ; FRAP ; FRAP1 ; FRAP2 ; RAFT1 ; RAPT1 ; Serine/threonine-protein kinase mTOR ; FK506-binding protein 12-rapamycin complex-associated protein 1 ; FKBP12-rapamycin complex-associated protein ; Mammalian target of rapamycin ; mTOR ; Mechanistic tar
Observed Band	289kD
Calculated Molecular Weight	289kD
Cell Pathway	Endoplasmic reticulum membrane ; Peripheral membrane protein ; Cytoplasmic side . Golgi apparatus membrane ; Peripheral membrane protein ; Cytoplasmic side . Mitochondrion outer membrane ; Peripheral membrane protein ; Cytoplasmic side . Lysosome . Cytoplasm . Nucleus, PML body . Microsome membrane . Lysosome membrane . Cytoplasmic vesicle, phagosome . Shuttles between cytoplasm and nucleus. Accumulates in the nucleus in response to hypoxia (By similarity). Targeting to lysosomes depends on amino acid availability





and RRAGA and RRAGB (PubMed:18497260, PubMed:20381137). Lysosome targeting also depends on interaction with MEAK7. Translocates to the lysosome membrane in the presence of TM4SF5 (PubMed:30956113).

Tissue Specificity

Expressed in numerous tissues, with highest levels in testis.

Function

Acts as the target for the cell-cycle arrest and immunosuppressive effects of the FKBP12-rapamycin complex. Part of the TORC2 complex which plays a critical role in AKT1 Ser-473 phosphorylation, and may modulate the phosphorylation of PKCA and regulate actin cytoskeleton organization. similarity:Belongs to the PI3/PI4-kinase family. similarity:Contains 1 FAT domain. similarity:Contains 1 FATC domain. similarity:Contains 1 PI3K/PI4K domain. similarity:Contains 7 HEAT repeats. subunit:Interacts with the FKBP12-rapamycin complex. Binds UBQLN1. Forms part of the mammalian target of rapamycin 2 complex (TORC2) comprised of FRAP1, GBL, PRR5, RICTOR and SIN. TORC2 does not bind to and is not sensitive to FKBP12-rapamycin. Binds directly to PRR5 and RICTOR within the TORC2 complex. tissue specificity:Expressed in numerous tissues, with highest levels in testis.

Background

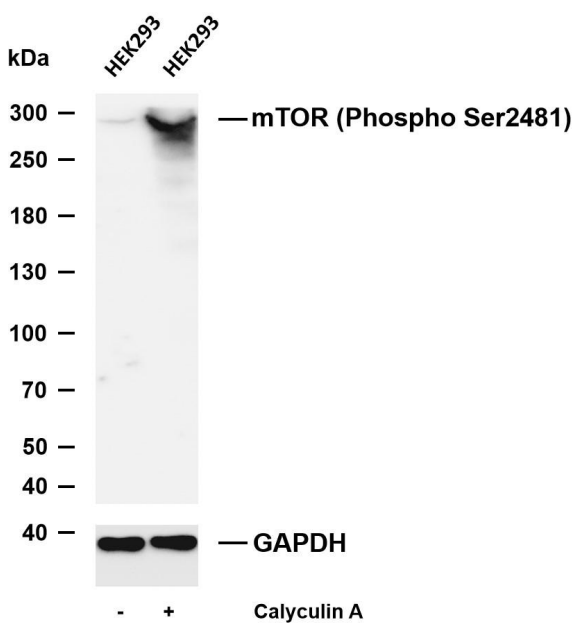
The protein encoded by this gene belongs to a family of phosphatidylinositol kinase-related kinases. These kinases mediate cellular responses to stresses such as DNA damage and nutrient deprivation. This protein acts as the target for the cell-cycle arrest and immunosuppressive effects of the FKBP12-rapamycin complex. The ANGPTL7 gene is located in an intron of this gene. [provided by RefSeq, Sep 2008],

matters needing attention

Avoid repeated freezing and thawing!

Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-mTOR (Phospho Ser2481) antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: HEK293 Lane 2: HEK293 was treated with Calyculin A(100nM) for 1 hour Predicted band size: 289kDa Observed band size: 289kDa

