



# mTOR (phospho Ser2448) Polyclonal Antibody

<b>Catalog No</b>	YP-Ab-14329
<b>Isotype</b>	IgG
<b>Reactivity</b>	Human;Mouse;Rat;Bovine;Pig
<b>Applications</b>	WB;IHC;IF;ELISA
<b>Gene Name</b>	MTOR
<b>Protein Name</b>	Serine/threonine-protein kinase mTOR
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human mTOR around the phosphorylation site of Ser2448. AA range:2415-2464
<b>Specificity</b>	Phospho-mTOR (S2448) Polyclonal Antibody detects endogenous levels of mTOR protein only when phosphorylated at S2448.
<b>Formulation</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source</b>	Polyclonal, Rabbit,IgG
<b>Purification</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Dilution</b>	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/40000. Not yet tested in other applications.
<b>Concentration</b>	1 mg/ml
<b>Purity</b>	≥90%
<b>Storage Stability</b>	-20°C/1 year
<b>Synonyms</b>	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
<b>Observed Band</b>	289kD
<b>Cell Pathway</b>	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). .
<b>Tissue Specificity</b>	Expressed in numerous tissues, with highest levels in testis.
<b>Function</b>	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**

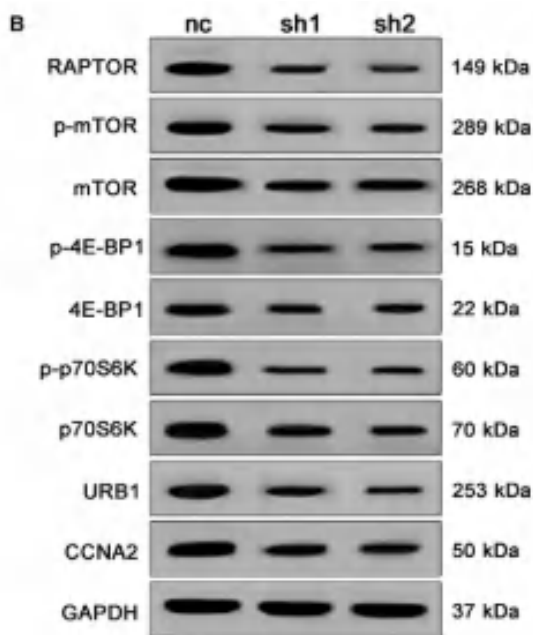
Avoid repeated freezing and thawing!

**Usage suggestions**

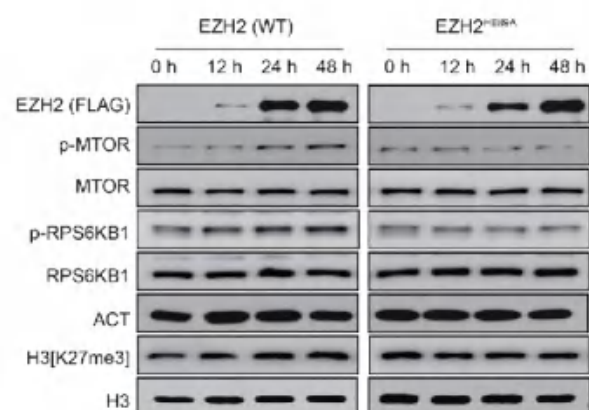
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



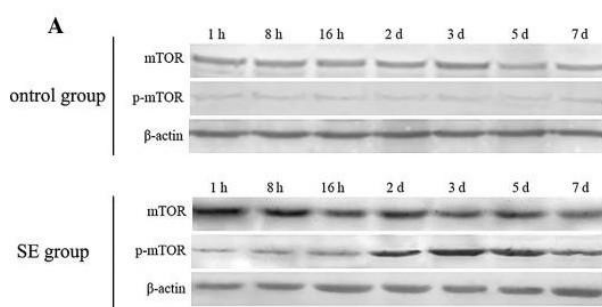
## Products Images



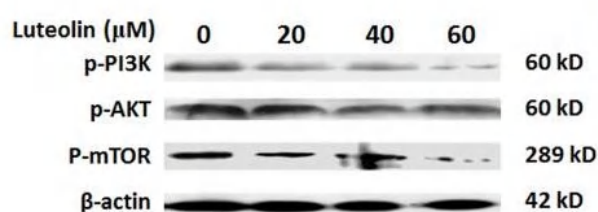
Wang, Tao, et al. "RAPTOR promotes colorectal cancer proliferation by inducing mTORC1 and upregulating ribosome assembly factor URB1." *Cancer medicine* 9.4 (2020): 1529-1543.



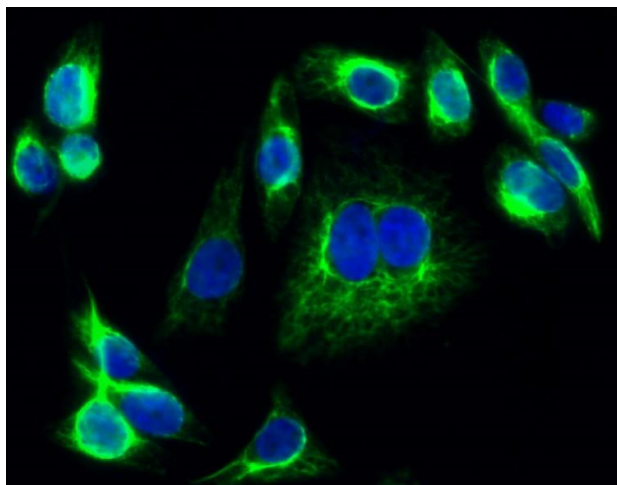
Wei, Fu-Zheng, et al. "Epigenetic regulation of autophagy by the methyltransferase EZH2 through an MTOR-dependent pathway." *Autophagy* 11.12 (2015): 2309-2322.



San, Yong-Zhi, et al. "Peroxisome proliferator-activated receptor- $\gamma$  agonist inhibits the mammalian target of rapamycin signaling pathway and has a protective effect in a rat model of status epilepticus." *Molecular medicine reports* 12.2 (2015): 1877-1883.



Lu, Xueying, et al. "Luteolin induces apoptosis in vitro through suppressing the MAPK and PI3K signaling pathways in gastric cancer." *Oncology letters* 14.2 (2017): 1993-2000.



Immunofluorescence analysis of HeLa cell. 1,mTOR (phospho Ser2448) Polyclonal Antibody(green) was diluted at 1:200(4° overnight). 2, Goat Anti Rabbit Alexa Fluor 488 Catalog:RS3211 was diluted at 1:1000(room temperature, 50min). 3 DAPI(blue) 10min.