

mTOR Polyclonal Antibody

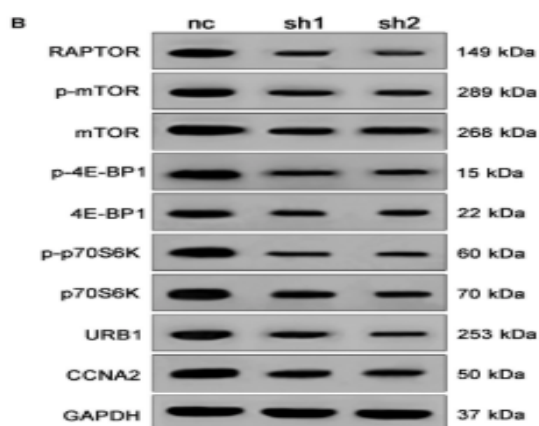
Catalog No :	YT2913
Reactivity :	Human;Mouse;Rat;Bovine;Chicken;Pig
Applications :	WB;IHC;IF;ELISA
Target :	mTOR
Fields :	>>EGFR tyrosine kinase inhibitor resistance;>>Endocrine resistance;>>ErbB signaling pathway;>>HIF-1 signaling pathway;>>Phospholipase D signaling pathway;>>Autophagy - other;>>Autophagy - animal;>>mTOR signaling pathway;>>PI3K-Akt signaling pathway;>>AMPK signaling pathway;>>Longevity regulating pathway;>>Longevity regulating pathway - multiple species;>>Cellular senescence;>>Apelin signaling pathway;>>Neutrophil extracellular trap formation;>>JAK-STAT signaling pathway;>>Th17 cell differentiation;>>Thermogenesis;>>Insulin signaling pathway;>>Thyroid hormone signaling pathway;>>Adipocytokine signaling pathway;>>Type II diabetes mellitus;>>Insulin resistance;>>Growth hormone synthesis, secretion and action;>>Alzheimer disease;>>Amyotrophic lateral sclerosis;>>Huntington disease;>>Spinocerebellar ataxia;>>Pathways of neurodegeneration - multiple diseases;>>Shigellosis;>>Human cytomegalovirus infection;>>Human papillomavirus infection;>>Kaposi sarcoma-associated herpesvirus infection;>>He
Gene Name :	MTOR
Protein Name :	Serine/threonine-protein kinase mTOR
Human Gene Id :	2475
Human Swiss Prot No :	P42345
Mouse Gene Id :	56717
Mouse Swiss Prot No :	Q9JLN9
Rat Gene Id :	56718
Rat Swiss Prot No :	P42346

Immunogen :	The antiserum was produced against synthesized peptide derived from human mTOR. AA range:2447-2496
Specificity :	mTOR Polyclonal Antibody detects endogenous levels of mTOR protein.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Polyclonal, Rabbit,IgG
Dilution :	WB 1:500-2000;IHC 1:100-500;IF ICC 1:100-500;ELISA 1:5000-20000
Purification :	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Concentration :	1 mg/ml
Storage Stability :	-15°C to -25°C/1 year(Do not lower than -25°C)
Observed Band :	289kD
Cell Pathway :	Regulates Angiogenesis; Insulin Receptor; ErbB/HER; mTOR; B Cell Receptor; PI3K/Akt; AMPK
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],
Function :	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.,
Subcellular	Endoplasmic reticulum membrane ; Peripheral membrane protein ; Cytoplasmic side . Golgi apparatus membrane ; Peripheral membrane protein ; Cytoplasmic

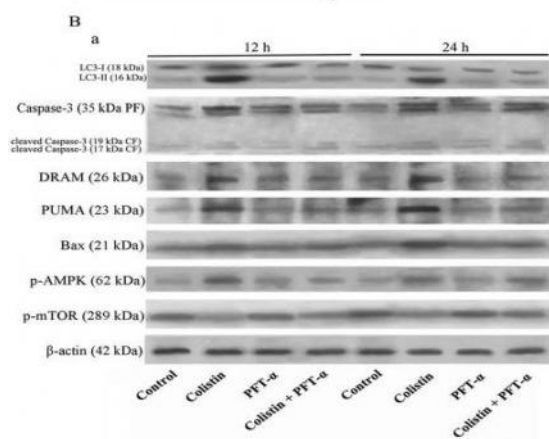
Location : side . Mitochondrion outer membrane ; Peripheral membrane protein ; Cytoplasmic side . Lysosome . Cytoplasm . Nucleus, PML body . Microsome membrane . Lysosome membrane . Cytoplasmic vesicle, phagosome . Shuttles between cytoplasm and nucleus. Accumulates in the nucleus in response to hypoxia (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) .

Expression : Expressed in numerous tissues, with highest levels in testis.

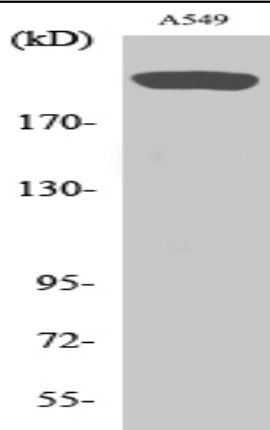
Products Images



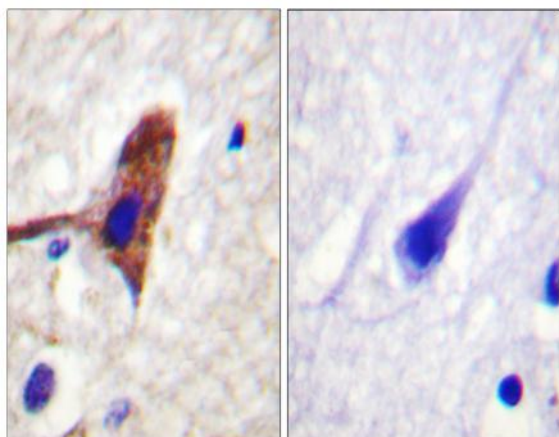
Wang, Tao, et al. "RAPTOR promotes colorectal cancer proliferation by inducing mTORC1 and upregulating ribosome assembly factor URB1." *Cancer medicine* 9.4 (2020): 1529-1543.



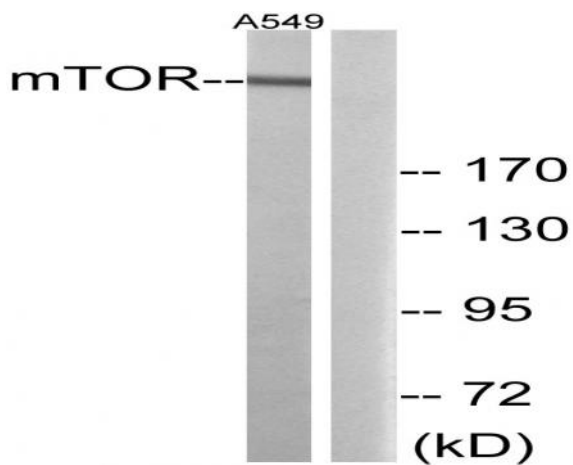
Zhang, Ling, et al. "P53 mediates colistin-induced autophagy and apoptosis in PC-12 cells." *Antimicrobial agents and chemotherapy* (2016): AAC-00641.



Western Blot analysis of various cells using mTOR Polyclonal Antibody



Immunohistochemistry analysis of paraffin-embedded human brain tissue, using mTOR Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from A549 cells, using mTOR Antibody. The lane on the right is blocked with the synthesized peptide.