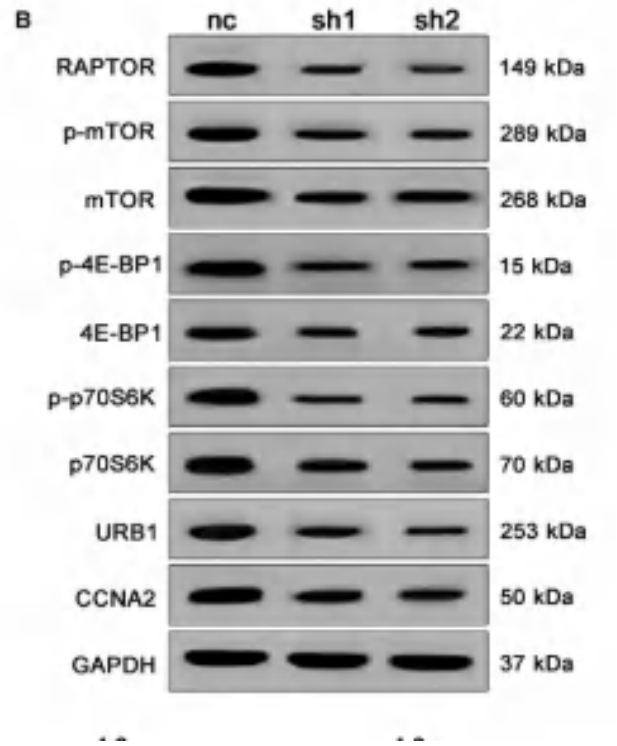
mTOR Polyclonal Antibody

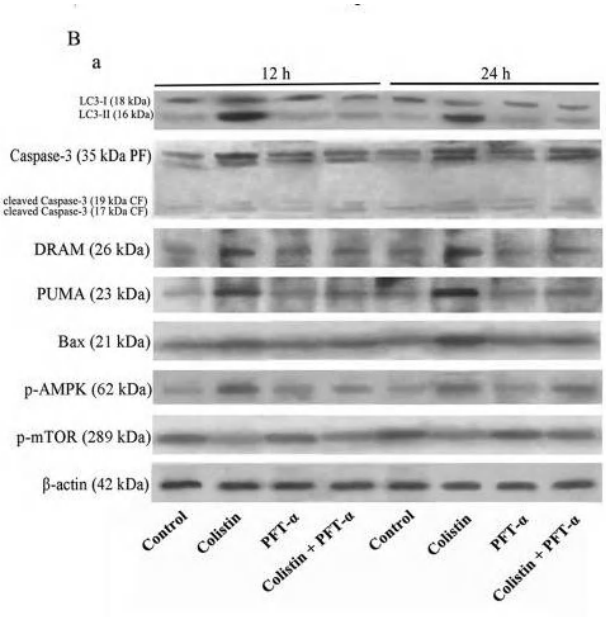
Catalog No	YP-Ab-14867
Isotype	IgG
Reactivity	Human;Mouse;Rat;Bovine;Chicken;Pig
Applications	WB;IHC;IF;ELISA
Gene Name	MTOR
Protein Name	Serine/threonine-protein kinase mTOR
Immunogen	The antiserum was produced against synthesized peptide derived from human mTOR. AA range:2447-2496
Specificity	mTOR 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
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-2000;IHC-p 1:100-500;IF/ICC 1:100-500;ELISA 1:5000-20000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
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
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	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.

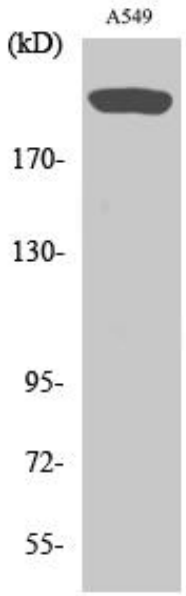
Products Images



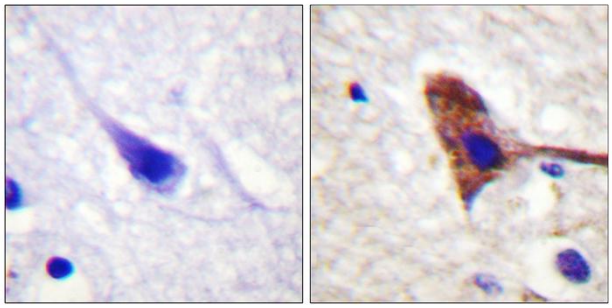
Wang, Tao, et al. "RAPTOR promotes colorectal cancer proliferation by inducing mTORC1 and upregulating ribosome assembly factor URB1." Cancer medicine 9.4 (2020): 1529-1543.



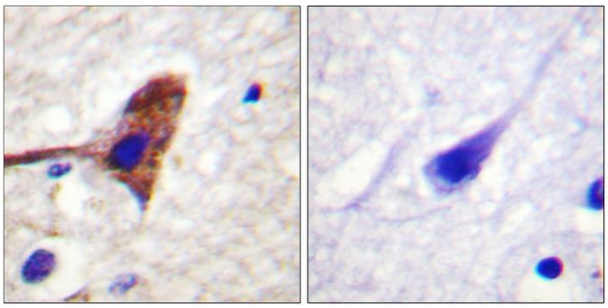
Zhang, Ling, et al. "P53 mediates colistin-induced autophagy and apoptosis in PC-12 cells." Antimicrobial agents and chemotherapy (2016): AAC-00641.



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.