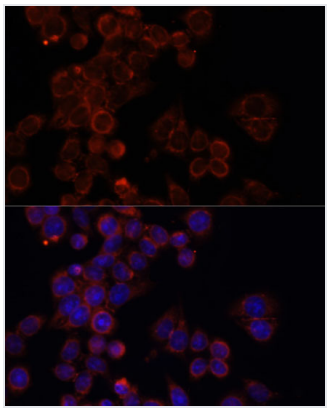
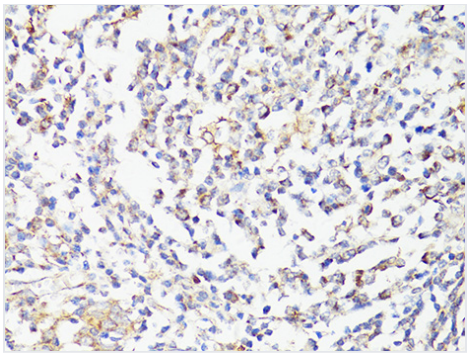
mTOR Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

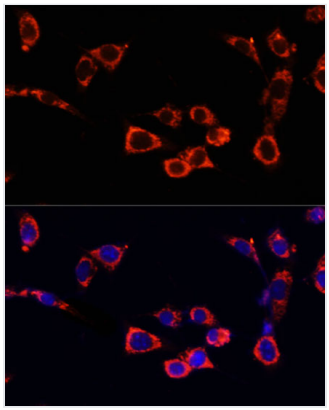
Product Name	mTOR, Polyclonal Antibody
Full Product Name	mTOR Polyclonal Antibody
Product Gene Name	anti-mTOR antibody
Product Synonym Names	FRAP; FRAP1; FRAP2; RAFT1; RAPT1; SKS; mTOR; MTOR
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg2+ and Ca2+), pH7.4, 150mM NaCl, 0.02% sodium azide and 176% glycerol. PBS with 0.02% sodium azide, 50% glycerol, pH7.129
Purity/Purification	Affinity purification
Concentration	1mg/ml (lot specific)
Preparation and Storage	Store at -20 degree C. Avoid freeze/thaw cycles.
Molecular Weight	288,892 Da
Chromosome Location	Chromosome: 1; NC_000001.10 (11166588..11322608, complement). Location: 1p36.2
OMIM	601231
3D Structure	ModBase 3D Structure for P42345
Immunogen	Recombinant fusion protein of human mTOR (NP_004949.1)
Product Categories/Family for anti-mTOR antibody	Total protein Ab
Applications Tested/Suitable for anti-mTOR antibody	Western Blot (WB), Immunohistochemistry (IHC), Immunofluorescence (IF)
Application Notes for anti-mTOR antibody	WB: 1:500-1:2000 IHC: 1:50-1:200 IF: 1:50-1:200
Related Product Information for anti-mTOR antibody	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.
Other Notes	Small volumes of anti-mTOR antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for mTOR purchase	MBS9457612 is an antibody targeting mTOR. Also known as mTOR Polyclonal Antibody. Reactive in Human, Mouse, Rat. Host: Rabbit.



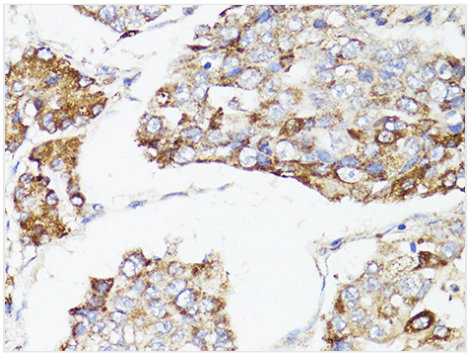
Immunofluorescence (IF) of anti-mTOR antibody
Immunofluorescence analysis of HeLa cells using mTOR antibody at dilution of 1:100. Blue: DAPI for nuclear staining.



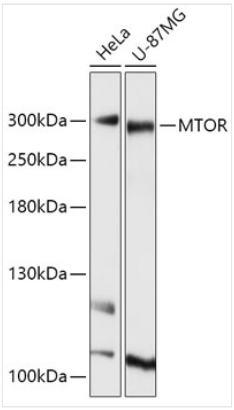
Immunohistochemistry (IHC) of anti-mTOR antibody
Immunohistochemistry of paraffin-embedded human tonsil using mTOR antibody at dilution of 1:150 .



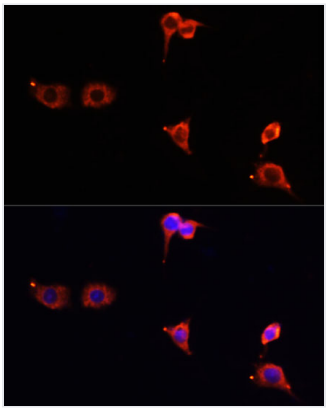
Immunofluorescence (IF) of anti-mTOR antibody
Immunofluorescence analysis of NIH/3T3 cells using mTOR antibody at dilution of 1:100. Blue: DAPI for nuclear staining.



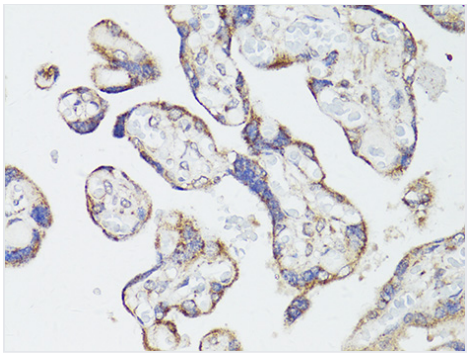
Immunohistochemistry (IHC) of anti-mTOR antibody
Immunohistochemistry of paraffin-embedded human liver cancer using mTOR antibody at dilution of 1:150 .



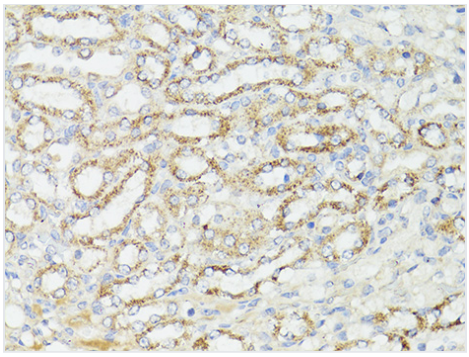
Western Blot (WB) of anti-mTOR antibody
Western blot analysis of extracts of various cell lines, using mTOR antibody at 1:1000 dilution.



Immunofluorescence (IF) of anti-mTOR antibody
Immunofluorescence analysis of PC12 cells using mTOR antibody at dilution of 1:100. Blue: DAPI for nuclear staining.



Immunohistochemistry (IHC) of anti-mTOR antibody
Immunohistochemistry of paraffin-embedded human placenta using mTOR antibody at dilution of 1:150 .



Immunohistochemistry (IHC) of anti-mTOR antibody
Immunohistochemistry of paraffin-embedded mouse kidney using mTOR antibody at dilution of 1:150 .

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for mTOR. It may not necessarily be applicable to this product.

NCBI GI #	4826730
NCBI GeneID	2475
NCBI Accession #	NP_004949.1
UniProt Primary Accession #	P42345
UniProt Secondary Accession #	Q4LE76; Q5TER1; Q6LE87; Q96QG3; Q9Y4I3
UniProt Related Accession #	P42345
GenBank Nucleotide #	NM_004958.3
NCBI Official Full Name	serine/threonine-protein kinase mTOR
NCBI Official Synonym Full Names	mechanistic target of rapamycin (serine/threonine kinase)
NCBI Official Symbol	MTOR
NCBI Official Synonym Symbols	FRAP; FRAP1; FRAP2; RAFT1; RAPT1
UniProt Protein Name	Serine/threonine-protein kinase mTOR
UniProt Synonym Protein Names	FK506-binding protein 12-rapamycin complex-associated protein 1; FKBP12-rapamycin complex-associated protein; Mammalian target of rapamycin; mTOR; Mechanistic target of rapamycin; Rapamycin and FKBP12 target 1; Rapamycin target protein 1
Protein Family	Serine/threonine-protein kinase
UniProt Gene Name	MTOR
UniProt Synonym Gene Names	FRAP; FRAP1; FRAP2; RAFT1; RAPT1; mTOR
UniProt Entry Name	MTOR_HUMAN
NCBI Protein Information	serine/threonine-protein kinase mTOR; rapamycin target protein 1; mammalian target of rapamycin; rapamycin and FKBP12 target 1; FKBP-rapamycin associated protein; rapamycin associated protein FRAP2; FKBP12-rapamycin complex-associated protein 1; FK506 bin

UniProt Comments for mTOR	mTOR: an atypical kinase belonging to the PIKK family of kinases. Is the catalytic subunit of two protein complexes, mTORC1 and mTORC2. mTORC1 activates S6K and inactivates 4E-BP1, up-regulating protein synthesis. mTORC1 contains Raptor, a positive regulatory subunit and scaffold for recruiting substrates, two negative regulators, PRAS40 and DEPTOR, and mLST8; it is a target for the cell-cycle arrest and immunosuppressive effects of the FKBP12-rapamycin complex. mTORC2, a downstream effector of PI3K, is insensitive to rapamycin and activates Akt by phosphorylating a key activation site. mTORC2 contains regulatory subunits Rictor and mSIN1, PROTOR, mLST8, and the negative regulator DEPTOR. mTORC1 suppresses PI3K activity via a strong negative feedback loop that involves S6K1. Inhibiting mTORC1 ablates this negative feedback loop and potentiates PI3K signaling. Known inhibitors of mTOR include rapamycin, temsirolimus (CCI-779). Protein type: Autophagy; Kinase, protein; EC 2.7.11.1; Motility/polarity/chemotaxis; Protein kinase, Ser/Thr (non-receptor); Protein kinase, atypical; ATYPICAL group; PIKK family; FRAP subfamily Chromosomal Location of Human Ortholog: 1p36.2 Cellular Component: endoplasmic reticulum membrane; PML body; lysosomal membrane; lysosome; dendrite; endomembrane system; cytosol; nucleoplasm; Golgi membrane; mitochondrial outer membrane; membrane; cell soma; cytoplasm; TORC2 complex; nucleus; phosphoinositide 3-kinase complex Molecular Function: protein dimerization activity; protein domain specific binding; protein serine/threonine kinase activity; protein binding; ribosome binding; phosphoprotein binding; kinase activity; drug binding; ATP binding Biological Process: negative regulation of autophagy; regulation of myelination; TOR signaling pathway; positive regulation of translation; nerve growth factor receptor signaling pathway; protein amino acid autophosphorylation; regulation of glycogen biosynthetic process; negative regulation of cell size; signal transduction; protein amino acid phosphorylation; germ cell development; negative regulation of macroautophagy; cellular response to nutrient levels; positive regulation of stress fiber formation; regulation of carbohydrate utilization; response to stress; protein catabolic process; cell growth; regulation of response to food; response to nutrient; epidermal growth factor receptor signaling pathway; phosphoinositide-mediated signaling; fibroblast growth factor receptor signaling pathway; peptidyl-threonine phosphorylation; positive regulation of lipid biosynthetic process; negative regulation of NFAT protein import into nucleus; response to amino acid stimulus; double-strand break repair via homologous recombination; positive regulation of protein kinase B signaling cascade; positive regulation of peptidyl-tyrosine phosphorylation; peptidyl-serine phosphorylation; positive regulation of actin filament polymerization; regulation of actin cytoskeleton organization and biogenesis; T cell costimulation; insulin receptor signaling pathway; ruffle organization and biogenesis; innate immune response; regulation of fatty acid beta-oxidation; positive regulation of transcription from RNA polymerase III promoter; positive regulation of endothelial cell proliferation; positive regulation of protein amino acid phosphorylation; vascular endothelial growth factor receptor signaling pathway; regulation of protein kinase activity; phosphorylation; growth
Research Articles on mTOR	**1.** The TNF-alpha-mediated in vitro RPE cell migration mainly requires Akt/mTORC1, but not mTORC2 signaling. The results of this study may lead to indentify novel signaling targets against PVR.
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