

Rabbit anti-Human MTOR Polyclonal Antibody | anti-MTOR antibody

MTOR Antibody

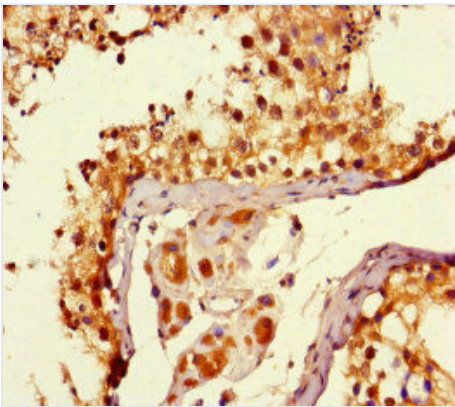
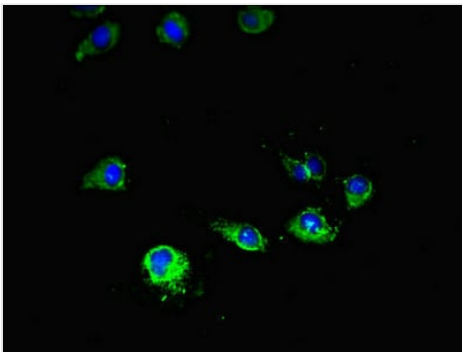
CATALOG # AAA231467	HOST Rabbit	REACTIVITY Human	APPLICATIONS Immunofluorescence, Immunohistochemistry, ELISA
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PRODUCT SYNONYMS

MTOR; Polyclonal Antibody; MTOR Antibody; Serine/threonine-protein kinase mTOR; FK506-binding protein 12-rapamycin complex-associated protein 1; FKBP12-rapamycin complex-associated protein; Mammali; FRAP; FRAP1; FRAP2; RAFT1; RAPT1; anti-MTOR antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	IgG
Purity/Purification	>95%, Protein G purified
Form/Format	Liquid
Sequence Length	2549
Applicable Applications for anti-MTOR antibody	IF (Immunofluorescence), IHC (Immunohistochemistry), ELISA
Species	Human
Immunogen	Recombinant human Serine/threonine-protein kinase mTOR protein
Conjugate	Non-conjugated
Buffer	Preservative: 0.03% Proclin 300 Constituents: 50% Glycerol, 0.01M PBS, PH 7.4
Santa Cruz Alternative	Potential replacement for Santa Cruz Biotechnology antibody catalog# sc-1549 / sc-1550-R / sc-8319
Preparation and Storage	Shipped at 4 degree C. Upon delivery aliquot and store at -20 degree C or -80 degree C. Avoid repeated freeze.



IF (Immunofluorescence)
Immunofluorescent analysis of HeLa cells using AAA231467 at a dilution of 1:100 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L)

IHC (Immunohistochemistry)
Immunohistochemistry of paraffin-embedded human testis tissue using AAA231467 at dilution of 1:100

ADDITIONAL INFORMATION

Related Product Information for anti-MTOR antibody

Serine/threonine protein kinase which is a central regulator of cellular metabolism, growth and survival in response to hormones, growth factors, nutrients, energy and stress signals. MTOR directly or indirectly regulates the phosphorylation of at least 800 proteins. Functions as part of 2 structurally and functionally distinct signaling complexes mTORC1 and mTORC2 (mTOR complex 1 and 2). Activated mTORC1 up-regulates protein synthesis by phosphorylating key regulators of mRNA translation and ribosome synthesis. This includes phosphorylation of EIF4EBP1 and release of its inhibition toward the elongation initiation factor 4E (eIF4E). Moreover, phosphorylates and activates RPS6KB1 and RPS6KB2 that promote protein synthesis by modulating the activity of their downstream targets including ribosomal protein S6, eukaryotic translation initiation factor EIF4B, and the inhibitor of translation initiation PDCD4. Stimulates the pyrimidine biosynthesis pathway, both by acute regulation through RPS6KB1-mediated phosphorylation of the biosynthetic enzyme CAD, and delayed regulation, through transcriptional enhancement of the pentose phosphate pathway which produces 5-phosphoribosyl-1-pyrophosphate (PRPP), an allosteric activator of CAD at a later step in synthesis, this function is dependent on the mTORC1 complex. Regulates ribosome synthesis by activating RNA polymerase III-dependent transcription through phosphorylation and inhibition of MAF1 an RNA polymerase III-repressor. In parallel to protein synthesis, also regulates lipid synthesis through SREBF1/SREBP1 and LPIN1. To maintain energy homeostasis mTORC1 may also regulate mitochondrial biogenesis through regulation of PPARGC1A. mTORC1 also negatively regulates autophagy through phosphorylation of ULK1. Under nutrient sufficiency, phosphorylates ULK1 at 'Ser-758', disrupting the interaction with AMPK and preventing activation of ULK1. Also prevents autophagy through phosphorylation of the autophagy inhibitor DAP. mTORC1 exerts a feedback control on upstream growth factor signaling that includes phosphorylation and activation of GRB10 a INSR-dependent signaling suppressor. Among other potential targets mTORC1 may phosphorylate CLIP1 and regulate microtubules. As part of the mTORC2 complex MTOR may regulate other cellular processes including survival and organization of the cytoskeleton. Plays a critical role in the phosphorylation at 'Ser-473' of AKT1, a pro-survival effector of phosphoinositide 3-kinase, facilitating its activation by PDK1. mTORC2 may regulate the actin cytoskeleton, through phosphorylation of PRKCA, PXN and activation of the Rho-type guanine nucleotide exchange factors RHOA and RAC1A or RAC1B. mTORC2 also regulates the phosphorylation of SGK1 at 'Ser-422'. Regulates osteoclastogenesis by adjusting the expression of CEBPB isoforms (By similarity).

NCBI AND UNIPROT INFORMATION

NCBI GI #	4826730
NCBI GeneID	2475
NCBI Accession #	NP_004949.1
NCBI GenBank Nucleotide #	NM_004958.3
UniProt Accession #	P42345; Q4LE76; Q5TER1; Q6LE87; Q96QG3; Q9Y4I3
Molecular Weight	288,892 Da

NCBI Official Full Name	serine/threonine-protein kinase mTOR
NCBI Official Synonym Full Names	mechanistic target of rapamycin
NCBI Official Symbol	MTOR
NCBI Official Synonym Symbols	SKS; FRAP; FRAP1; FRAP2; RAFT1; RAPT1
NCBI Protein Information	serine/threonine-protein kinase mTOR
UniProt Protein Name	Serine/threonine-protein kinase mTOR
UniProt Gene Name	MTOR
UniProt Synonym Gene Names	FRAP; FRAP1; FRAP2; RAFT1; RAPT1; mTOR
UniProt Entry Name	MTOR_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/polyclonal/mtor-antibody-immunofluorescence-immunohistochemistry-elisa/231467>