

Rabbit Anti-MTOR Polyclonal Antibody

CPB-1226RH Rabbit(MTOR)

Lot. No. (See product label)

PRODUCT INFORMATION

Product Overview	Rabbit Anti-MTOR Polyclonal Antibody
Antigen Description	Kinase subunit of both mTORC1 and mTORC2, which regulate cell growth and survival in response to nutrient and hormonal signals. mTORC1 is activated in response to growth factors or amino-acids. Amino-acid-signaling to mTORC1 is mediated by Rag GTPases, which cause amino-acid-induced relocalization of mTOR within the endomembrane system. Growth factor-stimulated mTORC1 activation involves AKT1-mediated phosphorylation of TSC1-TSC2, which leads to the activation of the RHEB GTPase that potently activates the protein kinase activity of mTORC1. Activated mTORC1 up-regulates protein synthesis by phosphorylating key regulators of mRNA translation and ribosome synthesis. mTORC1 phosphorylates EIF4EBP1 and releases it from inhibiting the elongation initiation factor 4E (eIF4E).
specificity	The antibody detects endogenous level of total mTOR protein.
Target	MTOR
Immunogen	Peptide sequence around aa. 2479~2483 (I-H-S-F-I) derived from Human mTOR.
Host	Rabbit
Species	Human
Cross Reactivity	Human; Mouse; Rat
conjugation	N/A
Applications	IHC

PACKAGING

Format	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg ²⁺ and Ca ²⁺), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C/1 year

ANTIGEN GENE INFORMATION

Gene Name	MTOR mechanistic target of rapamycin (serine/threonine kinase) [Homo sapiens]
Official Symbol	MTOR
Synonyms	MTOR; mechanistic target of rapamycin (serine/threonine kinase); FK506 binding protein 12 rapamycin associated protein 1, FRAP, FRAP1, FRAP2; serine/threonine-protein kinase mTOR; dJ576K7.1 (FK506 binding protein 12 rapamycin associated protein 1); FK506 binding protein 12 rapamycin associated protein 2; FKBP rapamycin associated protein; FKBP12 rapamycin complex associated protein 1; FLJ44809; mammalian target of rapamycin; RAFT1; rapamycin and FKBP12 target 1; rapamycin associated protein FRAP2; rapamycin target protein; RAPT1; rapamycin target protein 1; FKBP-rapamycin associated protein; FKBP12-rapamycin complex-associated protein 1; FK506 binding protein 12-rapamycin associated protein 1; FK506 binding protein 12-rapamycin associated protein 2; FK506-binding protein 12-rapamycin complex-associated protein 1; FRAP; FRAP1; FRAP2;
GeneID	2475
mRNA Refseq	NM_004958

Protein Refseq [NP_004949](#)

MIM [601231](#)

UniProt ID P42345

Chromosome Location 1p36

Pathway AMPK signaling, organism-specific biosystem; Acute myeloid leukemia, organism-specific biosystem; Acute myeloid leukemia, conserved biosystem; Adaptive Immune System, organism-specific biosystem; Adipocytokine signaling pathway, organism-specific biosystem; Adipocytokine signaling pathway, conserved biosystem; Alpha6-Beta4 Integrin Signaling Pathway, organism-specific biosystem;

Function ATP binding; RNA polymerase III type 1 promoter DNA binding; RNA polymerase III type 2 promoter DNA binding; RNA polymerase III type 3 promoter DNA binding; TFIIIC-class transcription factor binding; kinase activity; kinase activity; nucleotide binding; phosphoprotein binding; phosphotransferase activity, alcohol group as acceptor; protein binding; protein domain specific binding; protein serine/threonine kinase activity; protein serine/threonine kinase activity; ribosome binding;