Recombinant Human MTOR Protein, GST tagged

Cat. No. MTOR-22H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human MTOR Protein with GST tag was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	2017-2114aa
Description	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 kinase is a component of two distinct complexes, mTORC1, which controls protein synthesis, cell growth and proliferation, and mTORC2, which is a regulator of the actin cytoskeleton, and promotes cell survival and cell cycle progression. This protein acts as the target for the cell-cycle arrest and immunosuppressive effects of the FKBP12-rapamycin complex. Inhibitors of mTOR are used in organ transplants as immunosuppressants, and are being evaluated for their therapeutic potential in SARS-CoV-2 infections. Mutations in this gene are associated with Smith-Kingsmore syndrome and somatic focal cortical dysplasia type II. The ANGPTL7 gene is located in an intron of this gene.
Molecular Mass	38.4 kDa
AA Sequence	MSPILGYWKIKGLVQPTRLLLEYLEEKYEEHLYERDEGDKWRNKKFELGLEFPNLPY YIDGDVKLTQSMAIIRYIADKHNMLGGCPKERAEISMLEGAVLDIRYGVSRIAYSKDFE TLKVDFLSKLPEMLKMFEDRLCHKTYLNGDHVTHPDFMLYDALDVVLYMDPMCLDA

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	FPKLVCFKKRIEAIPQIDKYLKSSKYIAWPLQGWQATFGGGDHPPKSDLVPRGSELIR VAILWHEMWHEGLEEASRLYFGERNVKGMFEVLEPLHAMMERGPQTLKETSFNQA YGRDLMEAQEWCRKYMKSGNVKDLTQAWDLYYHVFRRISKQ
Purity	> 80% by SDS-PAGE
Storage	Store it at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Concentration	2.5 mg/mL
Storage Buffer	PBS, pH 7.4

GENE INFORMATION

Gene Name	MTOR mechanistic target of rapamycin (serine/threonine kinase) [Homo sapiens (human)]
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

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Gene ID	2475
mRNA Refseq	NM_004958
Protein Refseq	NP_004949
MIM	601231
UniProt ID	P42345

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