

Product datasheet for TP320457

MTOR (NM_004958) Human Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant protein of human FK506 binding protein 12-rapamycin associated protein 1 (FRAP1/MTOR), 20 µg
Species:	Human
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>RC220457 representing NM_004958 Red =Cloning site Green =Tags(s)

MLGTGPAAATTAATTSSNVSVLQQFASGLKSRNEETRAKAAKELQHYVTMELREMSQEESTRFYDQLNHH
IFELVSSSDANERKGGILAIASLIGVEGGNATRIGRFANYLRNLLPSNDPVMEMASKAIGRLAMAGDTF
TAEYVEFEVKRALEWLGADRNEGRRHA AVLVLRELAISVPTFFFQVQPPFDNIFAVWDPKQAIREGAV
AALRACLILTTQREPKEKMPQWYRHTFEEAEKGFDETLAKEKGMNRDDRIHGALLILNELVRISSMEGE
RLREEMEEITQQQLVHDKYCKDLMGFGTKPRHITPFTSFQAVQPQQSNALVGLLGYSSHQGLMGFGTSP
S
PAKSTLVESRCCRDLMEEKFDQVCQWVWKCRNSKNSLIQMTILNLLPRLAAFRPSAFTDTQYLQDTMNHV
LSCVKKKERTAAFQALGLLSVAVRSEFKVYLPRVLDIIRAALPPKDFAHKRQKAMQVDATVFTCISMLA
RAMGPGIQQDIKELLEPMLAVGLSPALTAVLYDLRQIPQLKKDIQDGLLKMLSLVLMHKPLRHPGMPKG
LAHQLASPGLTTLPEASDVGSITLALRTLGSFEFEGHSLTQFVRHCADHFLNSEHKEIRMEAAARTCSRLL
TPSIHLISGHAHVVSQTAVQVADVLSKLLVVGITDPDPDIRYCVLASLDERFDAHLAQAENLQALFVAL
NDQVFEIRELAICTVGRLLSSMNPFAFVMPFLRKMLIQILTELEHSGIGRIKESARMLGHLVSNAPRLIRP
YMEPILKALILKLDPPDPNPGVINNVLATIGELAQVSGLEMRKWVDELFIIMDMLQDSSLLAKRQVA
LWTLGQLVASTGYVVEPYRKYPTLLEVLLNFKTEQNQGTRREAIRVLGGLGALDPYKHKVNIGMIDQSR
DASAVSLSESKSSQDSSDYSTSEMLVNMGNLPLDEFYPAVSMVALMRIFRDQSLSHHHTMVVQAITFIFK
SLGLKCVQFLPQVMPTFLNVIRVCDGAIREFLFQQLGMLVSVFKSHIRPYMDEIVTLMREFVWMNTSIQS
TIILLIEQIVVALGGEFKLYLPQLIPHMLRVFMHDNSPGRIVSIKLLAAIQLFGANLDDYLHLLPPIVK
LFDAPPEAPLPSRKALETVDRLTESLDFTDYASRIIHPVIRTLDSPELSTAMDTLSSLVFQLGKKYQI
FIPMVNKVLRHRINHQRVDVICRIVKGYTLADEEEDPLIYQHRMLRSGQGDALASGPVETGPMKKLHV
STINLQKAWGAARRVSKDDWLEWLRRLSLELLKDSSSPSLRSCWALAQAYNPMARDLFNAAFVSCWSEL
N
EDQQDELIRSIELALTSQDIAEVTQTLNLAEFMEHSDKGPLPLRDDNGIVLLGERAAKCRAYAKALHYK
ELEFQKGPTPAILESLSINNKLQQPEAAAGVLEYAMKHFGLEIQATWYEKLEHWEDALVAYDKKMDTN
KDDPELMLGRMRCLEALGEWGQLHQQCCEKWTLVNDETQAKMARMAAAAAWGLGQWDSMEEYTCM
IPRDT



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HDGAFYRAVLALHQDLFSLAQQCIDKARDLLDAELTAMAGESYSRAYGAMVVSCHMLSELEEVIQYKLVPE
 RREIIRQIWWERLQGCQRIVEDWQKILMVRSLVSPHEDMRTWLKYASLCGKSGRLALAHKTLVLLLGVD
 PSRQLDHPPTVHPQVYAYMKNMWKSARKIDAFQHMQHVFVQTMQQQAQHAIAITEDQQHKQELHKL
 MARC
 FLKLGEWQLNLQGINESTIPKVLQYSAATEHDRSWYKAWHAWAVMNFEAVLHYKHQNQARDEKKKLR
 HA
 SGANITNATTAATTAATATTTASTEGRNSESEAESTENSPTPSPLQKKVTEDLSKTLMLMYTVPVAVQGFFR
 SISLSRGNLQDTRLRVLTLWFDYGHWPDVNEALVEGVKAIQIDTWLQVIPQLIARIDTPRPLVGRLIHQ
 LTDIGRYHPQALIYPLTVASKSTTTARHNAANKILKNMCEHSNTLVQQAMMVSEELIRVAILWHEMWHEG
 LEEASRLYFGERNVKGMEVLEPLHAMMERGPQTLKETSFNQAYGRDLMEAQEWCRKYMKSGNVKDLT
 QA
 WDLYYHVFRISKQLPQLTSLELQYVSPKLLMCRDLELAVPGTYDPNQPIIRIQSIAPSLQVITSKQRPR
 KLTLMGSGNGHEFVLLKGHEDLRQDERVMQLFGLVNTLLANDPTSLRKNLSIQRYAVIPLSTNSGLIGWV
 PHCDTLHALIRDYREKKILLNIEHRIMLRMAPDYDHLTLMQKVEVFEHAVNNTAGDDLAKLLWLKSPSS
 EVWFDRRTNYTRSLAVMSMVGILGLGDRHPSNLMLDRLSGKILHIDFGDCFEVAMTREKFPKIPFRLT
 RMLTNAMEVTGLDGNRITHTVMVEVLREHKDSVMAVLEAFVYDPLLNWRLMDTNTKGNKRSRTRTDS
 YS
 AGQSVEILDGVELGEPAHKKTGTTVPESIHSFIGDGLVKPEALNKKAIQIINRVRDKLTGRDFSHDDTLD
 VPTQVELLIKQATSHENLCQCYIGWCPFW

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag:	C-Myc/DDK
Predicted MW:	288.7 kDa
Concentration:	>0.1 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Preparation:	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	NP_004949
Locus ID:	2475
UniProt ID:	P42345
RefSeq Size:	8680
Cytogenetics:	1p36.22

RefSeq ORF: 7647

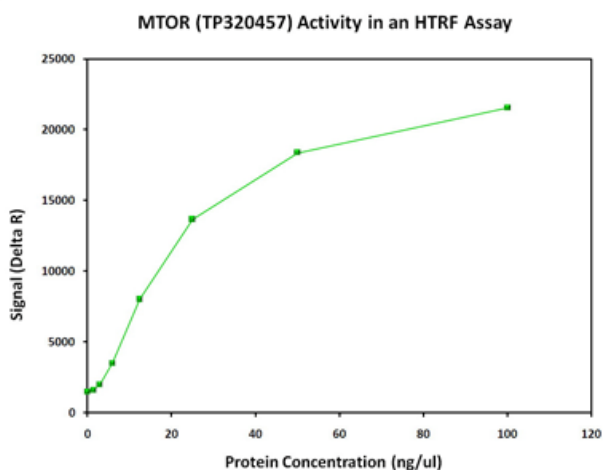
Synonyms: FRAP; FRAP1; FRAP2; RAFT1; RAPT1; SKS

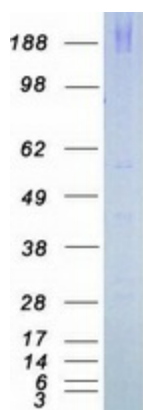
Summary: The protein encoded by this gene belongs to a family of phosphatidylinositol kinase-related kinases. These kinases mediate cellular responses to stresses such as DNA damage and nutrient deprivation. This kinase is a component of two distinct complexes, mTORC1, which controls protein synthesis, 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. [provided by RefSeq, Aug 2020]

Protein Families: Druggable Genome, Protein Kinase

Protein Pathways: Acute myeloid leukemia, Adipocytokine signaling pathway, ErbB signaling pathway, Glioma, Insulin signaling pathway, mTOR signaling pathway, Pathways in cancer, Prostate cancer, Type II diabetes mellitus

Product images:





Coomassie blue staining of purified MTOR protein (Cat# TP320457). The protein was produced from HEK293T cells transfected with MTOR cDNA clone (Cat# [RC220457]) using MegaTran 2.0 (Cat# [TT210002]).