Human MTOR Knockdown Cell Lysate

Cat. No. MTOR-374HKCL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	WB-validated MTOR Knockdown HeLa Cell Lysate
Species	Human
Source	HeLa
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.
Form	Cell-Tissue Lysis buffer
Molecular Mass	289 kDa
Notes	Instruction of use: This knockdown cell lysate should be paired with wild-type HeLa cell lysate for use. For Western blotting, we recommend running wild-type and knockdown lysates on the same gel, and loading each well with equal volume and

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	equal amount of total proteins.
Storage	Store at -20 centigrade for two years.
Concentration	Lot-specific
Shipping	Blue Ice
Components	1 vial of 100 µg WT HeLa cell lysate 1 vial of 100 µg MTOR KD HeLa cell lysate
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
Lysate QC	RT-qPCR; Western Blotting (WB)

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;

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

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