

## Recombinant Mouse Mcts1 Protein, Myc/DDK-tagged

Cat. No. Mcts1-4000M Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Purified recombinant protein of mouse full-length malignant T cell amplified sequence 1 (Mcts1), with C-terminal MYC/DDK tag, expressed in HEK293T cells.
<b>Species</b>	Mouse
<b>Source</b>	HEK293
<b>Description</b>	<p>Anti-oncogene that plays a role in cell cycle regulation; decreases cell doubling time and anchorage-dependent growth; shortens the duration of G1 transit time and G1/S transition. When constitutively expressed, increases CDK4 and CDK6 kinases activity and CCND1/cyclin D1 protein level, as well as G1 cyclin/CDK complex formation. Involved in translation initiation; promotes recruitment of aminoacylated initiator tRNA to P site of 40S ribosomes. Can promote release of deacylated tRNA and mRNA from recycled 40S subunits following ABCE1-mediated dissociation of post-termination ribosomal complexes into subunits. Plays a role as translation enhancer; recruits the density-regulated protein/DENR and binds to the cap complex of the 5'-terminus of mRNAs, subsequently altering the mRNA translation profile; up-regulates protein levels of BCL2L2, TFDP1, MRE11, CCND1 and E2F1, while mRNA levels remains constant. Hyperactivates DNA damage signaling pathway; increased gamma-irradiation-induced phosphorylation of histone H2AX, and induces damage foci formation. Increases the overall number of chromosomal abnormalities such as larger chromosomes formation and multiples chromosomal fusions when overexpressed in gamma-irradiated cells. May play a role in promoting lymphoid tumor development: lymphoid cell lines overexpressing MCTS1 exhibit increased growth rates and display</p>

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increased protection against apoptosis. May contribute to the pathogenesis and progression of breast cancer via promotion of angiogenesis through the decline of inhibitory THBS1/thrombospondin-1, and inhibition of apoptosis. Involved in the process of proteasome degradation to down-regulate Tumor suppressor p53/TP53 in breast cancer cell; Positively regulates phosphorylation of MAPK1 and MAPK3.

<b>Molecular Mass</b>	21 kDa
<b>Purity</b>	> 80% as determined by SDS-PAGE and Coomassie blue staining
<b>Stability</b>	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
<b>Storage</b>	Store at -80 centigrade after receiving vials.
<b>Concentration</b>	>50 µg/mL as determined by microplate BCA method
<b>Storage Buffer</b>	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

## GENE INFORMATION

<b>Gene Name</b>	Mcts1 malignant T cell amplified sequence 1 [ <i>Mus musculus</i> (house mouse) ]
<b>Official Symbol</b>	Mcts1
<b>Synonyms</b>	MCTS1; malignant T cell amplified sequence 1; malignant T-cell-amplified sequence 1; malignant T cell-amplified sequence 1; multiple copies T-cell malignancies 1; MCT-1; 1500019M23Rik
<b>Gene ID</b>	68995

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mRNA Refseq [NM\\_026902](#)

Protein Refseq [NP\\_081178](#)

UniProt ID [Q9DB27](#)

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