

Product datasheet for AR50819PU-S

9620 Medical Center Drive, Ste 200 Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com

OriGene Technologies, Inc.

EU: info-de@origene.com CN: techsupport@origene.cn

MCTS1 (1-181, His-tag) Human Protein

Product data:

Product Type: Recombinant Proteins

Description: MCTS1 (1-181, His-tag) human recombinant protein, 0.1 mg

Species: Human
Expression Host: E. coli

Expression cDNA Clone MGSSHHHHHH SSGLVPRGSH MGSMFKKFDE KENVSNCIQL KTSVIKGIKN QLIEQFPGIE

or AA Sequence: PWLNQIMPKK DPVKIVRCHE HIEILTVNGE LLFFRQREGP FYPTLRLLHK YPFILPHQQV DKGAIKFVLS

GANIMCPGLT SPGAKLYPAA VDTIVAIMAE GKQHALCVGV MKMSAEDIEK VNKGIGIENI

HYLNDGLWHM KTYK

Tag: His-tag
Predicted MW: 22.9 kDa
Concentration: lot specific

Purity: >95% by SDS - PAGE

Buffer: Presentation State: Purified

State: Liquid purified protein

Buffer System: 20 mM Tris-HCl buffer (pH 8.0) containing 0.15M NaCl, 20% glycerol, 1 mM

DTT

Preparation: Liquid purified protein

Protein Description: Recombinant human MCTS1 protein, fused to His-tag at N-terminus, was expressed in E.coli

and purified by using conventional chromatography techniques.

Storage: Store undiluted at 2-8°C for one week or (in aliquots) at -20°C to -80°C for longer. Avoid

repeated freezing and thawing.

Stability: Shelf life: one year from despatch.

RefSeq: <u>NP 001131026</u>

Locus ID: 28985
UniProt ID: Q9ULC4
Cytogenetics: Xq24

Synonyms: MCT-1; MCT1



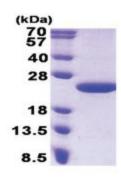


Summary:

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 aminoacetyled 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 gammairradiation-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 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. Involved in translation initiation; promotes aminoacetyled 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.[UniProtKB/Swiss-Prot Function]

Protein Families: Druggable Genome

Product images:



15% SDS-PAGE (3ug)