

Product datasheet for **SC115199**

Malignant T cell amplified sequence 1 (MCTS1) (NM_014060) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Malignant T cell amplified sequence 1 (MCTS1) (NM_014060) Human Untagged Clone
Tag:	Tag Free
Symbol:	MCTS1
Synonyms:	MCT-1; MCT1
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Cell Selection:	None
Fully Sequenced ORF:	>NCBI ORF sequence for NM_014060, the custom clone sequence may differ by one or more nucleotides

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ATGTTCAAGAAATTTGATGAAAAAGAAATGTGTCCAACGCATCCAGTTGAAAACCTCAGTTATTAAGG
GTATTAAGAATCAATTGATAGAGCAATTTCCAGGTATTGAACCATGGCTTAATCAAATCATGCCTAAGAA
AGATCCTGTCAAATAGTCCGATGCCATGAACATATAGAAATCCTTACAGTAAATGGAGAATTACTCTTT
TTTAGACAAAGAGAAGGGCCTTTTTATCCAACCCTAAGATTACTTCACAAATATCCTTTTATCCTGCCAC
ACCAGCAGTTGATAAAGGAGCCATCAAATTTGTACTCAGTGGAGCAAATATCATGTGTCCAGGCTTAAC
TTCTCCTGGAGCTAAGCTTTACCCTGCTGCAGTAGATACCATTGTTGCTATCATGGCAGAAGGAAAACAG
CATGCTCTATGTGTTGGAGTCATGAAGATGTCTGCAGAAGACATTGAGAAAGTCAACAAAGGAATTGGCA
TTGAAAATATCCATTATTTAAATGATGGCTGTGGCATATGAAGACATATAAATGA
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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_014060 unedited
 GGCAGAATTTTGTAAACGAACACTACTATAGGGCGGCCGGAATTCGCACGAGGAAGCGC
 GGCTGGCTCTCGTTTTCCGGATAACGACTACAGCTCCGACTGTCAGTGCCGGCCTTCCTC
 GTGTGAGGGGATCTGCCGACCCCTGCAAATTCATTTCTTTCCATTCCGGGCCCTTCC
 CTATCGTCGCCCCCTTACCTTGGATCATGTTCAAGAAATTTGATGAAAAAGAAAATGTG
 TCCAATGCATCCAGTTGAAAACCTCAGTTATTAAGGGTATTAAGAATCAATTGATAGAG
 CAATTTCCAGGTATTGAACCATGGCTTAATCAAATCATGCCTAAGAAAGATCCTGTCAA
 ATAGTCCGATGCCATGAACATATAGAAATCCTTACAGTAAATGGAGAATTACTCTTTTTT
 AGACAAAGAGAAGGGCCTTTTTATCCAACCCTAAGATTACTTCACAAATATCCTTTTATC
 CTGCCACACCAGCAGGTTGATAAAGGAGCCATCAAATTTGACTCAGTGGAGCAAATATC
 ATGTGTCCAGGCTTAACCTCTCCTGGAGCTAAGCTTTACCCTGCTGCAGTAGATACCATT
 GTTGCTATCATGGCAGAAGGAAAACAGCATGCTCTATGTGTTGGAGTCATGAAGATGTCT
 GCAGAAGACATTGAGAAAGTCAACAAAGGAATTGGCATTGAAAATATCCATTATTTAAAT
 GATGGGGCTGTGCATATGAAGACATATAAATGAGCCTCAGAAGGAATGCACTTGGGCTA
 AATATGGACTATGGGCTGTATCTGTGTTTGTGGCCTGTGTGTGACAGCATGAAGATAATG
 CCTGTGGTTATGCCTGAATAAATCACCCAAAGCTCAAAAAAAAAANAATTAANTAATTTAT
 NNTTNNAAATAAAATAATAATTAATTAATAAAAAAAAAAT

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_014060 unedited
 GGGCCGCAATCTAGAATCGAGNNNTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
 TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTAAACCCCGGGGAATTTATTCAACAAAAC
 CCCAGGGTTTTTTTTTATGCTGGCCCCCAGACCCAAACCCAGATCCCGGCAATTTCC
 ATTTTTACCCCAAGGGCCTTCTTTTGGGGTCATTTATATGGCTTCATATGCCCCAGCC
 CATTATTTAAAAAAGGGTTTTTTCAAGGCCAATTCCTTTGGGGACTTTTTAAAGGGCTT
 TTGAAACATTTTTATGACTCCAACACAAAAAGCAGGCGGGTTTCTTTTGCCAAGAAAA
 CAACAAGGGTTTTACCGGAGCAGGGGAAAACCTAACCCTAAAAAAATTAACCCCGGAC
 ACAAGAAATTTGCCCCCTGAGAACAAATTTGAGGGGCCCTTTATCAACCCGGGGGGGG
 GCAGGAAAAAAGGAAATTTGGGAAAAAATCTTAGGGGGGAAAAAAGGCCCTCTTTTT
 GTCTAAAAAAATAATTCCTTACTGGAAGGATTTCTATATGGTCATGGGATCGGA
 CCATTTTGACAGGAACCTTCTTAGGCATGAATTGATTAACCCCGGGGCAAAAACCCGGAA
 ATTGGTCTATAAATGGACTCTTAATACCCTTAATAACTGAAGTTTTCACTGGAAGCAGG
 TGGACACATTTCTTTTTAATAAAATTTTGAACATGACCACGGGGAAGGGGCCAAAA
 TAGGAAGGCCCGCTGCCAACGGAGCTTGACCTTTCCGAAACAGAGACCCCTCCACA
 AGGAAGGCCCGCTGCCAACGGAGCTTGACCTTTCCGAAACAGAGACCCCTCC
 GGGCCGATACCGGCCCTAAGAGGGCGATAAAAAATTGACGGTCTTAACAGTCTTGTT
 ATAACTCCCC

Restriction Sites:

NotI-NotI

ACCN:

NM_014060

Insert Size:

890 bp

OTI Disclaimer:

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

Components:

The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_014060.1](#), [NP_054779.1](#)

RefSeq Size: 943 bp

RefSeq ORF: 546 bp

Locus ID: 28985

UniProt ID: [Q9ULC4](#)

Cytogenetics: Xq24

Domains: PUA

Protein Families: Druggable Genome

Gene 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 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 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 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.[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (1) represents the longer transcript and encodes the shorter isoform (1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.