



**MCT** 

Mouse Monoclonal Antibody (Mab)
Catalog # APA299

# **Specification**

## **MCT - Product Information**

Application IHC
Primary Accession O9ULC4
Host Mouse
Clonality Monoclonal
Calculated MW 20555 Da

## **MCT - Additional Information**

Gene ID 28985
Gene Name MCTS1

**Other Names** 

Malignant T-cell-amplified sequence 1, MCT-1, Multiple copies T-cell malignancies, MCTS1, MCT1

**Dilution** 

IHC~~1:100~500

Storage Maintain refrigerated at 2-8°C for up to 2

weeks. For long term storage store at -20°C in small aliquots to prevent

freeze-thaw cycles.

Precautions MCT is for research use only and not for

use in diagnostic or therapeutic

procedures.

## **MCT - Protein Information**

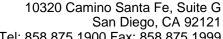
Name MCTS1

Synonyms MCT1

Function

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





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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 multiple chromosomal fusions when overexpressed in gammairradiated 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. Cytoplasm. Note=Nuclear relocalization after DNA damage **Ubiquitous. Over-expressed in T-cell** lymphoid cell lines and in non-Hodakin

lymphoma cell lines as well as in a subset of primary large B-cell lymphomas.

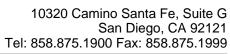
Cellular Location

Tissue Location

#### **MCT - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation





- Flow Cytomety
   Cell Culture
  MCT Images