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# MCT-1 Antibody (N-term)

**Purified Rabbit Polyclonal Antibody (Pab)**
**Catalog # AP6655a**

## Specification

### MCT-1 Antibody (N-term) - Product Information

| | |
|---|---|
| Application | **WB,E** |
| Primary Accession | Q9ULC4 |
| Other Accession | Q9DB27, Q7ZV34, Q5ZI42, Q2KIE4, Q5PPY1 |
| Reactivity | **Human, Mouse** |
| Predicted | **Xenopus, Bovine, Chicken, Zebrafish** |
| Host | **Rabbit** |
| Clonality | **Polyclonal** |
| Isotype | **Rabbit IgG** |
| Calculated MW | **20555** |
| Antigen Region | **1-30** |

### MCT-1 Antibody (N-term) - Additional Information

**Gene ID** 28985

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

**Target/Specificity**
This MCT-1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human MCT-1.

**Dilution**
WB~~1:1000

**Format**
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

**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-1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

### MCT-1 Antibody (N-term) - Protein Information

**Name** MCTS1

**Synonyms** MCT1

**Function** Translation regulator forming a complex with DENR to promote translation reinitiation. Translation reinitiation is the process where the small ribosomal subunit remains attached to the mRNA following termination of translation of a regulatory upstream ORF (uORF), and resume scanning on the same mRNA molecule to initiate translation of a downstream ORF, usually the main ORF (mORF). The MCTS1/DENR complex is pivotal to two linked mechanisms essential for translation reinitiation. Firstly, the dissociation of deacylated tRNAs from post- termination 40S ribosomal complexes during ribosome recycling. Secondly, the recruitment in an EIF2-independent manner of aminoacylated initiator tRNA to P site of 40S ribosomes for a new round of translation (PubMed:16982740, PubMed:20713520, PubMed:37875108). This regulatory mechanism governs the translation of more than 150 genes which translation reinitiation is MCTS1/DENR complex-dependent (PubMed:16982740, PubMed:20713520, PubMed:37875108). Consequently, modulates various unrelated biological processes including cell cycle regulation and DNA damage signaling and repair (PubMed:10440924, PubMed:11709712, PubMed:12637315, PubMed:15897892, PubMed:16322206, PubMed:17016429, PubMed:17416211, PubMed:9766643). Notably, it positively regulates interferon gamma immunity to mycobacteria by enhancing the translation of JAK2 (PubMed:37875108).

**Cellular Location**
Cytoplasm. Note=Nuclear relocalization after DNA damage

**Tissue Location**
Ubiquitous. Over-expressed in T-cell lymphoid cell lines and in non-Hodgkin lymphoma cell lines as well as in a subset of primary large B-cell lymphomas.

## MCT-1 Antibody (N-term) - 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-1 Antibody (N-term) - Images

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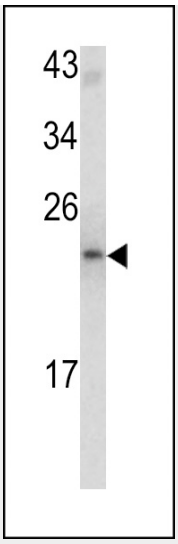


Western blot analysis of MCT-1 antibody (N-term) (Cat. #AP6655a) in mouse bladder tissue lysates (35ug/lane). MCTS1 (arrow) was detected using the purified Pab.

**MCT-1 Antibody (N-term) - Background**

MCTS1 play 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.

**MCT-1 Antibody (N-term) - References**

Kasiappan,R., Mol. Cancer Res. 7 (4), 536-548 (2009)
Mazan-Mamczarz,K., Leuk. Res. 33 (3), 474-482 (2009)
Shi,B., J. Cell. Biochem. 90 (1), 68-79 (2003)