10320 Camino Santa Fe, Suite A
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

MCT-1 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP6655a

Specification

MCT-1 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession Q9ULC4

MCT-1 Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 28985

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

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP6655a was selected from the N-term region of human MCT-1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

MCT-1 Antibody (N-term) Blocking Peptide - 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:<a

href="http://www.uniprot.org/citations/37875108" target="_blank">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) Blocking Peptide - Protocols

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

- Blocking Peptides

MCT-1 Antibody (N-term) Blocking Peptide - Images

MCT-1 Antibody (N-term) Blocking Peptide - 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) Blocking Peptide - 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)