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MCT

Mouse Monoclonal antibody(Mab)
Catalog # AD80299

Product Information

Application	IHC-P
Primary Accession	Q9ULC4
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	147E2T8
Calculated MW	20555

Additional Information

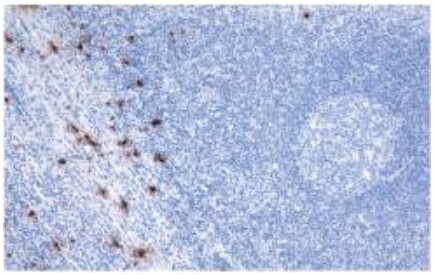
Gene ID	28985
Gene Name	MCTS1
Other Names	Malignant T-cell-amplified sequence 1, MCT-1, Multiple copies T-cell malignancies, MCTS1, MCT1
Dilution	IHC-P~~Ready-to-use
Storage	Maintain refrigerated at 2-8°C.
Precautions	MCT Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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.

Images



Immunohistochemical analysis of formalin-fixed and paraffin-embedded human tonsil tissue was performed with MCT primary antibody, followed by peroxidase-conjugated secondary antibody and DAB staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.