

Product datasheet

Anti-MCTS1/MCT-1 antibody ab238825

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Overview

Product name	Anti-MCTS1/MCT-1 antibody
Description	Rabbit polyclonal to MCTS1/MCT-1
Host species	Rabbit
Tested applications	Suitable for: IHC-P, ICC/IF
Species reactivity	Reacts with: Human
Immunogen	Recombinant full length protein corresponding to Human MCTS1/MCT-1 aa 1-200. Database link: Q9ULC4
Positive control	IHC-P: Human pancreatic cancer tissue. ICC/IF: PC-3 cells.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.03% Proclin 300 Constituents: PBS, 50% Glycerol (glycerin, glycerine)
Purity	Protein G purified
Purification notes	Purity greater than 95%.
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab238825 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		1/50 - 1/200.
ICC/IF		1/50 - 1/500.

Target**Function**

Anti-oncogene that 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. When constitutively expressed, increases CDK4 and CDK6 kinases activity and CCND1/cyclin D1 protein level, as well as G1 cyclin/CDK complex formation. 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, MRE11A, 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 over-expressed in gamma-irradiated cells. May play a role in promoting lymphoid tumor development: lymphoid cell lines over-expressing 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.

Tissue specificity

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.

Sequence similarities

Belongs to the MCTS1 family.
Contains 1 PUA domain.

Domain

The PUA RNA-binding domain is critical for cap binding, but not sufficient for translation enhancer function. MCT1 N-terminal region is required to enhance translation possibly trough interaction with other proteins.

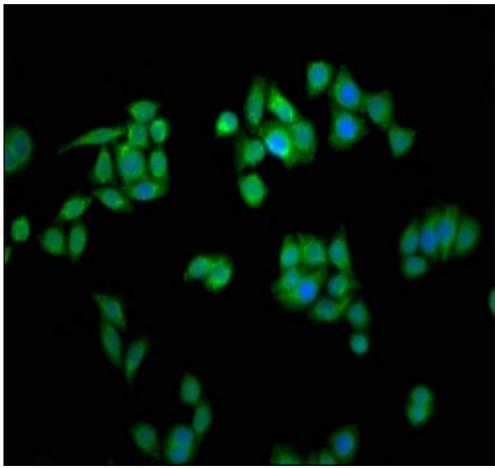
Post-translational modifications

Phosphorylation is critical for stabilization and promotion of cell proliferation.

Cellular localization

Cytoplasm. Nuclear relocalization after DNA damage.

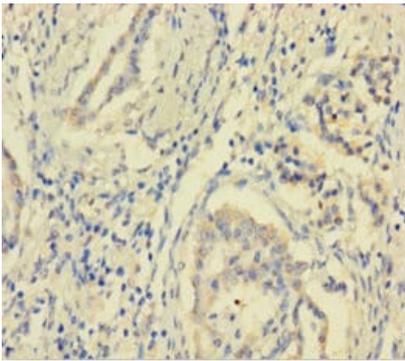
Images



Immunocytochemistry/ Immunofluorescence - Anti-MCT-1 antibody (ab238825)

PC-3 (human prostate adenocarcinoma cell line) cells stained for MCT-1 using ab238825 at a dilution of 1/266 in ICC/IF.

The cells were fixed in 4% formaldehyde, permeabilized using 0.2% Triton X-100 and blocked in 10% normal goat serum. The cells were then incubated with the primary antibody overnight at 4°C. Secondary used is an Alexa-Fluor[®]488-conjugated Goat Anti-Rabbit IgG (H+L). Counterstained with DAPI.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MCT-1 antibody (ab238825)

Paraffin-embedded human pancreatic cancer tissue stained for MCT-1 with ab238825 at 1/100 dilution in immunohistochemical analysis.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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