

Product datasheet

Recombinant Human MCTS1/MCT-1 protein ab140541

1 Image

Description

Product name	Recombinant Human MCTS1/MCT-1 protein
Purity	> 95 % SDS-PAGE. ab140541 is purified using conventional chromatography techniques.
Expression system	Escherichia coli
Accession	<u>Q9ULC4</u>
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human
Sequence	MGSSHHHHHH SSGLVPRGSH MGSMFKKFDE KENVSNCIQL KTSVIKGIKN QLIEQFPGIE PWLNQIMPKK DPVKIVRCHE HIEILTVNGE LLFFRQREGP FYPTLRLLHK YPFILPHQQV DKGAIKFVLS GANIMCPGLT SPGAKLYPAA VDTVAIMAE GKQHALCVGV MKMSAEDIEK VNKGIGIENI HYLNDGLWHM KTYK
Predicted molecular weight	23 kDa including tags
Amino acids	1 to 181
Tags	His tag N-Terminus

Specifications

Our **Abpromise guarantee** covers the use of **ab140541** in the following tested applications.

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

Applications	SDS-PAGE Mass Spectrometry
Mass spectrometry	MALDI-TOF
Form	Liquid
Additional notes	Previously labelled as Malignant T cell amplified sequence 1.

Preparation and Storage

Stability and Storage	<p>Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.</p> <p>pH: 8.00</p> <p>Constituents: 0.02% DTT, 0.32% Tris HCl, 20% Glycerol (glycerin, glycerine), 0.88% Sodium chloride</p>
General Info	
Function	<p>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.</p>
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	<p>Belongs to the MCTS1 family.</p> <p>Contains 1 PUA domain.</p>
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 through 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



15% SDS-PAGE analysis of ab140541 (3ug)

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