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MCRS1 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP16872a

Specification

MCRS1 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession Q96EZ8

MCRS1 Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 10445

Other Names
Microspherule protein 1, 58 kDa microspherule protein, Cell cycle-regulated factor p78, INO80 complex subunit J, MCRS2, MCRS1, INO80Q, MSP58

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.

MCRS1 Antibody (N-term) Blocking Peptide - Protein Information

Name MCRS1

Synonyms INO80Q, MSP58

Function
Modulates the transcription repressor activity of DAXX by recruiting it to the nucleolus (PubMed:11948183). As part of the NSL complex, may be involved in acetylation of nucleosomal histone H4 on several lysine residues (PubMed:20018852). Putative regulatory component of the chromatin remodeling INO80 complex which is involved in transcriptional regulation, DNA replication and probably DNA repair. May also be an inhibitor of TERT telomerase activity (PubMed:15044100). Binds to G-quadruplex structures in mRNA (PubMed:16571602). Binds to RNA homomer poly(G) and poly(U) (PubMed:16571602). Maintains RHEB at the lysosome in its active GTP-bound form and prevents its interaction with the mTORC1 complex inhibitor TSC2, ensuring activation of the mTORC1 complex by RHEB (PubMed:25816988). Stabilizes the minus ends of kinetochore fibers by protecting them from depolymerization, ensuring

functional spindle assembly during mitosis (PubMed:22081094, PubMed:27192185). Following phosphorylation by TTK/MPS1, enhances recruitment of KIF2A to the minus ends of mitotic spindle microtubules which promotes chromosome alignment (PubMed:30785839). Regulates the morphology of microtubule minus ends in mitotic spindle by maintaining them in a closed conformation characterized by the presence of an electron-dense cap (PubMed:36350698). Regulates G2/M transition and spindle assembly during oocyte meiosis (By similarity). Mediates histone modifications and transcriptional regulation in germinal vesicle oocytes which are required for meiotic progression (By similarity). Also regulates microtubule nucleation and spindle assembly by activating aurora kinases during oocyte meiosis (By similarity). Contributes to the establishment of centriolar satellites and also plays a role in primary cilium formation by recruiting TTBK2 to the mother centriole which is necessary for removal of the CP110 cap from the mother centriole, an early step in ciliogenesis (PubMed:27263857). Required for epiblast development during early embryogenesis (By similarity). Essential for cell viability (PubMed:16547491).

Cellular Location
Nucleus. Nucleus, nucleolus Cytoplasm Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cytoplasm, cytoskeleton, spindle pole. Chromosome, centromere, kinetochore. Chromosome {ECO:0000250|UniProtKB:Q99L90}. Lysosome Cytoplasm, cytoskeleton, microtubule organizing center, centrosome, centriolar satellite. Note=Predominantly concentrated in the nucleus but also localizes to the centrosome (PubMed:16547491). Detected on the spindle poles during mitosis from prometaphase to telophase (PubMed:16547491). Found in microspherules in the nucleolus (PubMed:9654073). Localizes to lysosomes under high amino acid concentration conditions (PubMed:25816988). Localizes to the minus ends of kinetochore fibers and chromosomal microtubules (PubMed:22081094). Present in the nucleus of germinal vesicle oocytes and associates with spindles poles and chromosomes after germinal vesicle breakdown (By similarity). {ECO:0000250|UniProtKB:Q99L90, ECO:0000269|PubMed:16547491, ECO:0000269|PubMed:22081094, ECO:0000269|PubMed:25816988, ECO:0000269|PubMed:9654073}

Tissue Location
Detected in testis, and at lower levels in spleen, thymus, prostate, uterus, small intestine, colon and leukocytes

MCRS1 Antibody (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides

MCRS1 Antibody (N-term) Blocking Peptide - Images

MCRS1 Antibody (N-term) Blocking Peptide - Background

MCRS1 modulates the transcription repressor activity of DAXX by recruiting it to the nucleolus. May be an inhibitor of TERT telomerase activity.

MCRS1 Antibody (N-term) Blocking Peptide - References

Lin, W., et al. J. Cell. Mol. Med. 13 (11-12), 4608-4622 (2009) :Shi, H., et al. Cancer Sci. 100(9):1585-1590(2009)Venkatesan, K., et al. Nat. Methods 6(1):83-90(2009)Wu, J.L., et al. BMC

Cell Biol. 10, 9 (2009) :Ewing, R.M., et al. Mol. Syst. Biol. 3, 89 (2007) :