SANTA CRUZ BIOTECHNOLOGY, INC.

MTA2 (H-170): sc-28731

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

MTA1 (metastasis-associated protein 1) is a component of the NURD (nucleosome remodeling and histone deacetylation) complex, which is associated with ATP-dependent chromatin-remodeling and histone deacetylase activity. MTA1 functions in conjunction with other components of NURD to mediate transcriptional repression as it facilitates the association of repressor molecules with the chromatin. Structurally, MTA1 contains a single SH3-binding motif and a zinc finger domain, along with a region similar to the co-repressor protein N-Cor. MTA1 is normally expressed at low levels in various tissues and is more highly expressed in testis. Overexpression of MTA1 correlates with tumor invasion and metastasis in various carcinomas including colorectal, gastrointestinal and breast carcinomas. Elevation of MTA1 levels in these tumors appears to enhance the metastases to lymph nodes, increase mammary cell motility and potentiate growth, and therefore may be an indicator for assessing the potential malignancies of various tumors. A similar protein, MTA2, also designated MTA1-L1 (MTA1-like protein 1), shares more than 55% sequence homology with MTA1 and is ubiquitously expressed.

CHROMOSOMAL LOCATION

Genetic locus: MTA2 (human) mapping to 11q12.3; Mta2 (mouse) mapping to 19 A.

SOURCE

MTA2 (H-170) is a rabbit polyclonal antibody raised against amino acids 499-668 mapping at the C-terminus of MTA2 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

MTA2 (H-170) is recommended for detection of MTA2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

MTA2 (H-170) is also recommended for detection of MTA2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for MTA2 siRNA (h): sc-35983, MTA2 siRNA (m): sc-35984, MTA2 shRNA Plasmid (h): sc-35983-SH, MTA2 shRNA Plasmid (m): sc-35984-SH, MTA2 shRNA (h) Lentiviral Particles: sc-35983-V and MTA2 shRNA (m) Lentiviral Particles: sc-35984-V.

Molecular Weight of MTA2: 75 kDa.

Positive Controls: MTA2 (h): 293T Lysate: sc-116480, ZR-75-1 cell lysate: sc-2241 or HeLa nuclear extract: sc-2120.

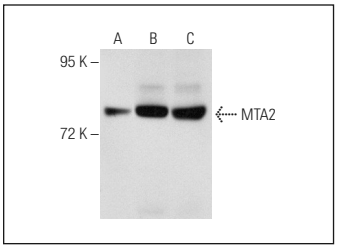
RESEARCH USE

For research use only, not for use in diagnostic procedures.

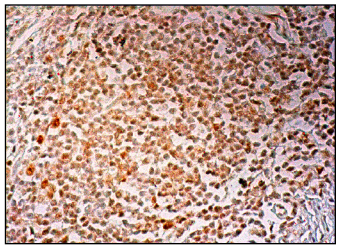
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



MTA2 (H-170): sc-28731. Western blot analysis of MTA2 expression in non-transfected 293T: sc-117752 (**A**), human MTA2 transfected 293T: sc-116480 (**B**) and ZR-75-1 (**C**) whole cell lysates.



MTA2 (H-170): sc-28731. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lymph node tissue showing nuclear staining of cells in germinal centers and cells in non-germinal centers.

SELECT PRODUCT CITATIONS

1. Morey, L., et al. 2008. MBD3, a component of the NuRD complex, facilitates chromatin alteration and deposition of epigenetic marks. Mol. Cell. Biol. 28: 5912-5923.
2. Hwang, S.S., et al. 2010. GATA-binding protein-3 regulates T helper type 2 cytokine and ifng loci through interaction with metastasis-associated protein 2. Immunology 131: 50-58.
3. Xuan, C., et al. 2012. RBB, a novel transcription repressor, represses the transcription of HDM2 oncogene. Oncogene 32: 3711-3721.
4. Carter, D.M., et al. 2015. Proteomic identification of nuclear processes manipulated by cytomegalovirus early during infection. Proteomics 15: 1995-2005.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.