



MTA2 (h): 293T Lysate: sc-116480

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.

REFERENCES

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2. Toh, Y., Pencil, S.D. and Nicolson, G.L. 1995. Analysis of the complete sequence of the novel metastasis-associated candidate gene, MTA1, differentially expressed in mammary adenocarcinoma and breast cancer cell lines. *Gene* 159: 97-104.
3. Toh, Y., Oki, E., Oda, S., Tokunaga, E., Ohno, S., Maehara, Y., Nicolson, G.L. and Sugimachi, K. 1997. Overexpression of the MTA1 gene in gastrointestinal carcinomas: correlation with invasion and metastasis. *Int. J. Cancer* 74: 459-463.
4. Heinzel, T., Lavinsky, R.M., Mullen, T.M., Soderstrom, M., Laherty, C.D., Torchia, J., Yang, W.M., Brard, G., Ngo, S.D., Davie, J.R., Seto, E., Eisenman, R.N., Rose, D.W., Glass, C.K. and Rosenfeld, M.G. 1997. A complex containing N-CoR, mSin3 and histone deacetylase mediates transcriptional repression. *Nature* 387: 43-48.
5. Paterno, G.D., Li, Y., Luchman, H.A., Ryan, P.J. and Gillespie, L.L. 1997. cDNA cloning of a novel, developmentally regulated immediate early gene activated by fibroblast growth factor and encoding a nuclear protein. *J. Biol. Chem.* 272: 25591-25595.

CHROMOSOMAL LOCATION

Genetic locus: MTA2 (human) mapping to 11q12.3.

PRODUCT

MTA2 (h): 293T Lysate represents a lysate of human MTA2 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

MTA2 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive MTA2 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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