

nm23-H2 (h): 293 Lysate: sc-111270

BACKGROUND

The nm23 gene, a potential suppressor of metastasis, was originally identified by differential hybridization between two murine melanoma sub-lines, one with a high- and the second with a low-metastatic capacity. Highly metastatic sub-lines exhibit much lower levels of nm23 than less metastatic cells. Based on sequence analysis, nm23 appears highly related to nucleotide diphosphate kinases (NDP). In humans, NDP kinases A and B are identical to two isoforms of human nm23 homologs, namely nm23-H1 and H2, respectively. nm23-H2 is identical in sequence to PuF, a transcription factor that binds to nuclease-hypersensitive elements at positions 142 to 115 of the human C-Myc promoter.

REFERENCES

1. Steeg, P.S., Bevilacqua, G., Kopper, L., Thorgeirsson, U.P., Talmadge, J.E., Liotta, L.A. and Sobel, M.E. 1988. Evidence for a novel gene associated with low tumor metastatic potential. *J. Natl. Cancer Inst.* 80: 200-209.
2. Lacombe, M., Wallet, V., Troll, H. and Véron, M. 1990. Functional cloning of a nucleoside diphosphate kinase from *Dictyostelium discoideum*. *J. Biol. Chem.* 265: 10012-10018.
3. Kimura, N., Shimada, N., Nomura, K. and Watanabe, K. 1990. Isolation and characterization of a cDNA clone encoding rat nucleoside diphosphate kinase. *J. Biol. Chem.* 265: 15744-15749.
4. Stahl, J.A., Leone, A., Rosengard, A.M., Porter, L., King, C.R. and Steeg, P.S. 1991. Identification of a second human nm23 gene, nm23-H2. *Cancer Res.* 51: 445-449.
5. Urano, T., Takamiya, K., Furukawa, K. and Shiki, H. 1992. Molecular cloning and functional expression of the second mouse nm23/NDP kinase gene, nm23-M2. *FEBS Lett.* 309: 358-362.
6. Urano, T., Furukawa, K. and Shiku, H. 1993. Expression of nm23/NDP kinase proteins on the cell surface. *Oncogene* 8: 1371-1376.
7. Postel, E.H., Berberich, S.J., Flint, S.J. and Ferrone, C.A. 1993. Human c-Myc transcription factor PuF identified as nm23-H2 nucleoside diphosphate kinase, a candidate suppressor of tumor metastasis. *Science* 261: 478-480.

CHROMOSOMAL LOCATION

Genetic locus: NME2 (human) mapping to 17q21.33.

PRODUCT

nm23-H2 (h): 293 Lysate represents a lysate of human nm23-H2 transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

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.

APPLICATIONS

nm23-H2 (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive nm23-H2 antibodies. Recommended use: 10-20 µl per lane.

Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

RESEARCH USE

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