nm23-H4 (h): 293 Lysate: sc-113212



The Power to Question

BACKGROUND

The nm23 gene (metastasis inhibition factor nm23), a potential suppressor of metastasis, is expressed at a much lower level in highly metastatic cells than in cells with lower metastatic potential. Based on sequence analysis, nm23, also designated nucleoside diphosphate kinase A (NDK A) or tumor metastatic process-associated protein, appears to be highly related to nucleotide diphosphate kinases (NDP). NDP kinases A and B are identical to two isotypes of human nm23 homologs, nm23-H1 and nm23-H2, respectively. nm23-H2 is also 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. Nm23-H3 and nm23-H4 are important for the synthesis of nucleoside triphosphates and may play a role in apoptosis induction and hematopoiesis. Nm23-H4 localizes to the mitochondrial intermembrane space and is widely expressed, with higher levels detected in prostate, heart, liver, small intestine and skeletal muscle tissues. Low amounts of nm23-H4 are observed in the brain and in blood leukocytes.

REFERENCES

- Milon, L., Rousseau-Merck, M.F., Munier, A., Erent, M., Lascu, I., Capeau, J. and Lacombe, M.L. 1997. Nm23-H4, a new member of the family of human nm23/nucleoside diphosphate kinase genes localised on chromosome 16p13. Hum. Genet. 99: 550-557.
- Milon, L., Meyer, P., Chiadmi, M., Munier, A., Johansson, M., Karlsson, A., Lascu, I., Capeau, J., Janin, J. and Lacombe, M.L. 2000. The human nm23-H4 gene product is a mitochondrial nucleoside diphosphate kinase. J. Biol. Chem. 275: 14264-14272.
- Daniels, R.J., Peden, J.F., Lloyd, C., Horsley, S.W., Clark, K., Tufarelli, C., Kearney, L., Buckle, V.J., Doggett, N.A., Flint, J. and Higgs, D.R. 2001.
 Sequence, structure and pathology of the fully annotated terminal 2 Mb of the short arm of human chromosome 16. Hum. Mol. Genet. 10: 339-352.
- Masse, K., Dabernat, S., Bourbon, P.M., Larou, M., Amrein, L., Barraud, P., Perel, Y., Camara, M., Landry, M., Lacombe, M.L. and Daniel, J.Y. 2002. Characterization of the nm23-M2, nm23-M3 and nm23-M4 mouse genes: comparison with their human orthologs. Gene 296: 87-97.

CHROMOSOMAL LOCATION

Genetic locus: NME4 (human) mapping to 16p13.3.

PRODUCT

nm23-H4 (h): 293 Lysate represents a lysate of human nm23-H4 transfected 293 cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

nm23-H4 (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive nm23-H4 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-tranfected 293 cells.

RESEARCH USE

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

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.

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