

# nm23-H4 (F-20): sc-50948

## 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

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- 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.
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- 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; Nme4 (mouse) mapping to 17 B1.

## SOURCE

nm23-H4 (F-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of nm23-H4 of human origin.

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## PRODUCT

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

Blocking peptide available for competition studies, sc-50948 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

nm23-H4 (F-20) is recommended for detection of nm23-H4 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

nm23-H4 (F-20) is also recommended for detection of nm23-H4 in additional species, including porcine.

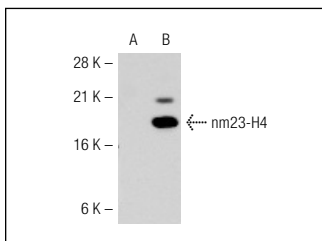
Suitable for use as control antibody for nm23-H4 siRNA (h): sc-61207 and nm23-H4 siRNA (m): sc-61208.

Molecular Weight of nm23-H4: 21 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



nm23-H4 (F-20): sc-50948. Western blot analysis of nm23-H4 expression in non-transfected: sc-110760 (A) and human nm23-H4 transfected: sc-113212 (B) 293 whole cell lysates.

## RESEARCH USE

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