SANTA CRUZ BIOTECHNOLOGY, INC.

nm23-H1 (L-16): sc-17586

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The nm23 gene, a potential suppressor of metastasis, was originally identified by differential hybridization between two murine melanoma sublines, 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 isotypes 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 promotor.

REFERENCES

1. Steeg, P.S., et al. 1988. Evidence for a novel gene associated with low tumor metastatic potential. J. Natl. Cancer Inst. 80: 200-209.
2. Lacombe, M., et al. 1990. Functional cloning of a nucleoside diphosphate kinase from *Dictyostelium discoideum*. J. Biol. Chem. 265: 10012-10018.
3. Kimura, N., et al. 1990. Isolation and characterization of a cDNA clone encoding rat nucleoside diphosphate kinase. J. Biol. Chem. 265: 15744-15749.
4. Stahl, J.A., et al. 1991. Identification of a second human nm23 gene, nm23-H2. Cancer Res. 51: 445-449.

CHROMOSOMAL LOCATION

Genetic locus: NME1 (human) mapping to 17q21.33; Nme1 (mouse) mapping to 11 D.

SOURCE

nm23-H1 (L-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of nm23-H1 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.

Blocking peptide available for competition studies, sc-17586 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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

APPLICATIONS

nm23-H1 (L-16) is recommended for detection of nm23-H1 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); weakly cross-reactive with nm23-H2.

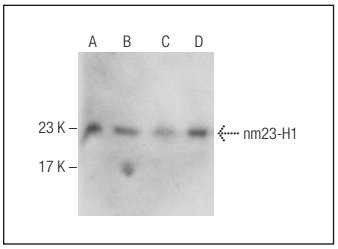
nm23-H1 (L-16) is also recommended for detection of nm23-H1 in additional species, including porcine.

Suitable for use as control antibody for nm23-H1 siRNA (h): sc-29414, nm23-H1 siRNA (m): sc-29415, nm23-H1 shRNA Plasmid (h): sc-29414-SH, nm23-H1 shRNA Plasmid (m): sc-29415-SH, nm23-H1 shRNA (h) Lentiviral Particles: sc-29414-V and nm23-H1 shRNA (m) Lentiviral Particles: sc-29415-V.

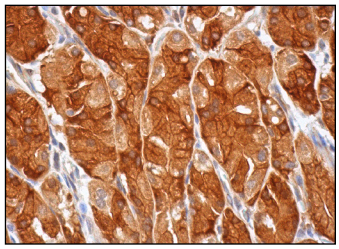
Molecular Weight of nm23-H1: 23 kDa.

Positive Controls: MOLT-4 cell lysate: sc-2233, Hep G2 cell lysate: sc-2227 or Ramos cell lysate: sc-2216.

DATA



nm23-H1 (L-16): sc-17586. Western blot analysis of nm23-H1 expression in MOLT-4 (**A**), Hep G2 (**B**), Raji (**C**) and Ramos (**D**) whole cell lysates.



nm23-H1 (L-16): sc-17586. Immunoperoxidase staining of formalin fixed, paraffin-embedded human upper stomach tissue showing cytoplasmic and membrane staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Zippo, A., et al. 2004. Identification of Flk-1-target genes in vasculogenesis: Pim-1 is required for endothelial and mural cell differentiation *in vitro*. Blood 103: 4536-4544.