SANTA CRUZ BIOTECHNOLOGY, INC.

NAP1L1 (2609C3a): sc-81328

BACKGROUND

Proper nucleosome assembly is critical for compacting DNA into chromatin. NAP1 (nucleosome assembly protein 1) is a nuclear protein that acts as a transcriptional regulator and functions in nucleosome assembly. NAP1L1 (nucleosome assembly protein 1-like 1), also known as NRP, is a 391 amino acid member of the nucleosome assembly protein (NAP) family and may be involved in mediating chromatin formation. Localized to the nucleus and expressed throughout the body, NAP1L1 contains acidic domains which are thought to mediate NAP1L1-histone interaction. Due to its role in DNA replication, NAP1L1 is implicated as an important regulator of cell proliferation. NAP1L1 shares 54% sequence similarity with the *Saccharomyces cerevisiae* Nap1 protein and may be a genetic marker for intestinal carcinomas.

REFERENCES

1. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 164060. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
2. Rehtanz, M., Schmidt, H.M., Warthorst, U. and Steger, G. 2004. Direct interaction between nucleosome assembly protein 1 and the papillomavirus E2 proteins involved in activation of transcription. Mol. Cell. Biol. 24: 2153-2168.
3. Okuwaki, M., Kato, K., Shimahara, H., Tate, S. and Nagata, K. 2005. Assembly and disassembly of nucleosome core particles containing histone variants by human nucleosome assembly protein I. Mol. Cell. Biol. 25: 10639-10651.
4. Kidd, M., Modlin, I.M., Mane, S.M., Camp, R.L., Eick, G. and Latich, I. 2006. The role of genetic markers—NAP1L1, MAGE-D2, and MTA1—in defining small-intestinal carcinoid neoplasia. Ann. Surg. Oncol. 13: 253-262.
5. Modlin, I.M., Kidd, M., Latich, I., Zikusoka, M.N., Eick, G.N., Mane, S.M. and Camp, R.L. 2006. Genetic differentiation of appendiceal tumor malignancy: a guide for the perplexed. Ann. Surg. 244: 52-60.
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CHROMOSOMAL LOCATION

Genetic locus: NAP1L1 (human) mapping to 12q21.2; Nap1l1 (mouse) mapping to 10 D1.

SOURCE

NAP1L1 (2609C3a) is a mouse monoclonal antibody raised against a recombinant protein corresponding to an internal region of NAP1L1 of human origin.

RESEARCH USE

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

PRODUCT

Each vial contains 100 µg IgG_1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% stabilizer protein.

APPLICATIONS

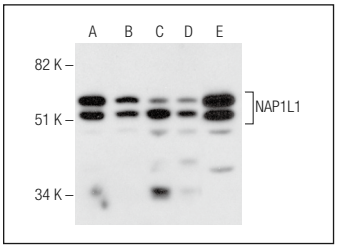
NAP1L1 (2609C3a) is recommended for detection of NAP1L1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for NAP1L1 siRNA (h): sc-75871, NAP1L1 siRNA (m): sc-75872, NAP1L1 shRNA Plasmid (h): sc-75871-SH, NAP1L1 shRNA Plasmid (m): sc-75872-SH, NAP1L1 shRNA (h) Lentiviral Particles: sc-75871-V and NAP1L1 shRNA (m) Lentiviral Particles: sc-75872-V.

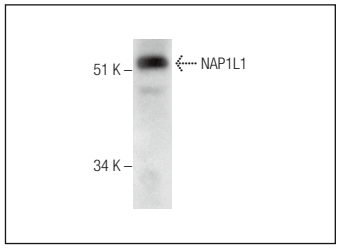
Molecular Weight of NAP1L1: 45 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, human stomach extract: sc-363780 or A-431 whole cell lysate: sc-2201.

DATA



NAP1L1 (2609C3a): sc-81328. Western blot analysis of NAP1L1 expression in HeLa (**A**), A-431 (**B**), HEK293 (**C**), I-11.15 (**D**) and Raji (**E**) whole cell lysates.



NAP1L1 (2609C3a): sc-81328. Western blot analysis of NAP1L1 expression in human stomach tissue extract.

SELECT PRODUCT CITATIONS

1. Ueshima, S., Nagata, K. and Okuwaki, M. 2017. Internal associations of the acidic region of upstream binding factor control its nucleolar localization. Mol. Cell. Biol. 37: e00218-17.
2. Escudero-Paniagua, B., Bartolomé, R.A., Rodríguez, S., de Los Ríos, V., Pintado, L., Jaen, M., Lafarga, M., Fernández-Aceñero, M.J. and Casal, J.I. 2020. PAUF/ZG16B promotes colorectal cancer progression through alterations of the mitotic functions and the Wnt/β-catenin pathway. Carcinogenesis 41: 203-213.

STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

PROTOCOLS

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