SANTA CRUZ BIOTECHNOLOGY, INC.

NPM2 (D-20): sc-98049

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The Power to Question

BACKGROUND

Nucleoplasmin (NP) and nucleophosmin (also called B23) are nuclear chaperones that mediate the assembly of ribosomes. Their activities are mediated through the binding of basic proteins via their acidic domains. Nucleophosmin is more abundant in tumor cells than in normal resting cells. Specifically, stimulation of the growth of normal cells is accompanied by an increase in nucleophosmin protein level. The structure of the N-terminal domain of nucleoplasmin (NP-core) is an eight-stranded β barrel that fits within a stable pentamer. Both NP and NP-core are competent to assemble large complexes that contain the four core histones. NPM2 (nucleophosmin/nucleoplasmin 2) is a 214 amino acid nuclear protein implicated in sperm DNA decondensation during fertilization. A member of the nucleoplasmin family, NPM2 plays a role in nuclear and nucleolar organization and is encoded by a gene located on human chromosome 8.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: NPM2 (human) mapping to 8p21.3; Npm2 (mouse) mapping to 14 D2.

RESEARCH USE

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

SOURCE

NPM2 (D-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NPM2 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-98049 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NPM2 (D-20) is recommended for detection of NPM2 of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Suitable for use as control antibody for NPM2 siRNA (h): sc-77504, NPM2 siRNA (m): sc-150052, NPM2 shRNA Plasmid (h): sc-77504-SH, NPM2 shRNA Plasmid (m): sc-150052-SH, NPM2 shRNA (h) Lentiviral Particles: sc-77504-V and NPM2 shRNA (m) Lentiviral Particles: sc-150052-V.

Molecular Weight of NPM2: 24 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) 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.

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 or our catalog for detailed protocols and support products.