

NHP2 (H-9): sc-398430

BACKGROUND

Dyskerin (NAP57) associates with the chaperone protein Nopp140 and forms a small ribonucleoprotein particle with GAR1 (NOLA1), NHP2 (NOLA2) and Nop10 for the isomerization of uridine to pseudouridine. GAR1, NHP2 and dyskerin localize to the dense fibrillar component of the nucleolus and in nuclear Cajal bodies. The dyskerin gene maps to chromosome Xq28. Missense mutations in the dyskerin gene interfere with normal nuclear localization of dyskerin and cause Dyskeratosis congenita (DKC). DKC is a rare, X-linked bone marrow disorder characterized by cutaneous hyperpigmentation, dystrophy of the nails, atrophy of the testicles and leukoplakia of the oral mucosa. The GAR1 gene maps to chromosome 4q25. The NHP2 gene maps to chromosome 5q35.3 and encodes a 155-amino acid protein.

CHROMOSOMAL LOCATION

Genetic locus: NHP2 (human) mapping to 5q35.3; Nhp2 (mouse) mapping to 11 B1.3.

SOURCE

NHP2 (H-9) is a mouse monoclonal antibody raised against amino acids 47-153 mapping at the C-terminus of NHP2 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

NHP2 (H-9) is available conjugated to agarose (sc-398430 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398430 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398430 PE), fluorescein (sc-398430 FITC), Alexa Fluor® 488 (sc-398430 AF488), Alexa Fluor® 546 (sc-398430 AF546), Alexa Fluor® 594 (sc-398430 AF594) or Alexa Fluor® 647 (sc-398430 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398430 AF680) or Alexa Fluor® 790 (sc-398430 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

NHP2 (H-9) is recommended for detection of NHP2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for NHP2 siRNA (h): sc-38300, NHP2 siRNA (m): sc-38301, NHP2 shRNA Plasmid (h): sc-38300-SH, NHP2 shRNA Plasmid (m): sc-38301-SH, NHP2 shRNA (h) Lentiviral Particles: sc-38300-V and NHP2 shRNA (m) Lentiviral Particles: sc-38301-V.

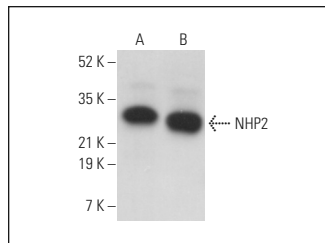
Molecular Weight of NHP2: 17 kDa.

Positive Controls: SJRH30 cell lysate: sc-2287, HeLa whole cell lysate: sc-2200 or RT-4 whole cell lysate: sc-364257.

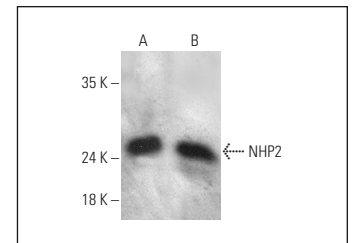
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



NHP2 (H-9): sc-398430. Western blot analysis of NHP2 expression in HeLa (A) and SJRH30 (B) whole cell lysates.



NHP2 (H-9) HRP: sc-398430 HRP. Direct western blot analysis of NHP2 expression in HeLa (A) and RT-4 (B) whole cell lysates.

SELECT PRODUCT CITATIONS

- Bergstrand, S., et al. 2020. Biallelic mutations in WRAP53 result in dysfunctional telomeres, Cajal bodies and DNA repair, thereby causing Hoyeraal-Hreidarsson syndrome. *Cell Death Dis.* 11: 238.
- Gong, Y., et al. 2021. Age-associated proteomic signatures and potential clinically actionable targets of colorectal cancer. *Mol. Cell. Proteomics* 20: 100115.
- Han, C., et al. 2022. Chromatin-associated orphan snoRNA regulates DNA damage-mediated differentiation via a non-canonical complex. *Cell Rep.* 38: 110421.
- Zacchini, F., et al. 2022. Human dyskerin binds to cytoplasmic H/ACA-box-containing transcripts affecting nuclear hormone receptor dependence. *Genome Biol.* 23: 177.

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 for detailed protocols and support products.

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