# NHP2 (C-18): sc-26988



The Power to Question

#### **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.

#### **REFERENCES**

- Hassock, S., Vetrie, D. and Giannelli, F. 1999. Mapping and characterization of the X-linked dyskeratosis congenita (DKC) gene. Genomics 55: 21-27.
- Heiss, N.S., Girod, A., Salowsky, R., Wiemann, S., Pepperkok, R. and Poustka, A. 1999. Dyskerin localizes to the nucleolus and its mislocalization is unlikely to play a role in the pathogenesis of dyskeratosis congenita. Hum. Mol. Genet. 8: 2515-2524.
- 3. Dragon, F., Pogacic, V. and Filipowicz, W. 2000. *In vitro* assembly of human H/ACA small nucleolar RNPs reveals unique features of U17 and telomerase RNAs. Mol. Cell. Biol. 20: 3037-3048.
- 4. Pogacic, V., Dragon, F. and Filipowicz, W. 2000. Human H/ACA small nucleolar RNPs and telomerase share evolutionarily conserved proteins NHP2 and NOP10. Mol. Cell. Biol. 20: 9028-9040.
- Wang, C., et al. 2002. Immunopurified small nucleolar ribonucleoprotein particles pseudouridylate rRNA independently of their association with phosphorylated Nopp140. Mol. Cell. Biol. 22:8457-8466.
- 6. LocusLink Report (LocusID: 54433). http://www.ncbi.nlm.nih.gov/LocusLink/
- 7. LocusLink Report (LocusID: 55651). http://www.ncbi.nlm.nih.gov/LocusLink/

#### **CHROMOSOMAL LOCATIONS**

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

### SOURCE

NHP2 (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of NHP2 of human origin.

## **PRODUCT**

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-26988 P, (100  $\mu g$  peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### **RESEARCH USE**

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

#### **APPLICATIONS**

NHP2 (C-18) is recommended for detection of NHP2 of human and, to a lesser extent, mouse and rat 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).

NHP2 (C-18) is also recommended for detection of NHP2 in additional species, including equine, canine, bovine and porcine.

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.

#### **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.



Try **NHP2 (H-9): sc-398430**, our highly recommended monoclonal alternative to NHP2 (C-18).

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 Fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com