# NAT-5 (H-86): sc-68397



The Power to Question

#### **BACKGROUND**

Acetyltransferases and deacetylases are protein groups most often associated with oncogenesis and cell cycle regulation. NAT-5 (N-acetyltransferase 5) is an intracellular protein involved in N-acetylation, particularly the acetylation of histones. NAT-5 is a component of the ARD1-NAT-1 (human arrest defective 1-N-acetyltransferase) complex, which acetylates the  $\alpha$ -amino groups of proteins during translation. NAT-5 contains an enzymatic acetyltransferase domain, which makes it an active component of the complex. ARD1 and NAT-1 have both shown upregulation in certain cancers and may facilitate the metastasis of papillary thyroid carcinomas.

## **REFERENCES**

- Fluge, Bruland, O., Akslen, L.A., Varhaug, J.E. and Lillehaug, J.R. 2002. NATH, a novel gene overexpressed in papillary thyroid carcinomas. Oncogene 21: 5056-5068.
- Gautschi, M., Just, S., Mun, A., Ross, S., Rücknagel, P., Dubaquié, Y., Ehrenhofer-Murray, A. and Rospert, S. 2003. The yeast Nα-acetyltransferase Natand interacts with nascent polypeptides. Mol. Cell. Biol. 23: 7403-7414.
- Arnesen, T., Anderson, D., Baldersheim, C., Lanotte, M., Varhaug, J.E. and Lillehaug, J.R. 2005. Identification and characterization of the human ARD1-NATH protein acetyltransferase complex. Biochem. J. 386: 433-443.
- Kim, S.H., Park, J.A., Kim, J.H., Lee, J.W., Seo, J.H., Jung, B.K., Chun, K.H., Jeong, J.W., Bae, M.K. and Kim, K.W. 2006. Characterization of ARD1 variants in mammalian cells. Biochem. Biophys. Res. Commun. 340: 422-427.
- Arnesen, T., Anderson, D., Torsvik, J., Halseth, H.B., Varhaug, J.E. and Lillehaug, J.R. 2006. Cloning and characterization of hNAT5/hSAN: an evolutionarily conserved component of the NatA protein N-α-acetyltransferase complex. Gene 371: 291-295.
- 6. Han, S.H., Ha, J.Y., Kim, K.H., Oh, S.J., Kim, d.o. .J., Kang, J.Y., Yoon, H.J., Kim, S.H., Seo, J.H., Kim, K.W. and Suh, S.W. 2006. Expression, crystallization and preliminary X-ray crystallographic analyses of two N-terminal acetyltransferase-related proteins from *Thermoplasma acidophilum*. Acta Crystallogr. Sect. F Struct. Biol. Cryst. Commun. 62: 1127-1130.
- 7. LocusLink Report (LocusID: 51126). http://www.ncbi.nlm.nih.gov/LocusLink/

# CHROMOSOMAL LOCATION

Genetic locus: NAT5 (human) mapping to 20p11.23; Nat5 (mouse) mapping to 2 G1.

# **SOURCE**

NAT-5 (H-86) is a rabbit polyclonal antibody raised against amino acids 1-86 mapping at the N-terminus of NAT-5 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.

#### **APPLICATIONS**

NAT-5 (H-86) is recommended for detection of NAT-5 of mouse, rat 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).

NAT-5 (H-86) is also recommended for detection of NAT-5 in additional species, including canine, bovine and avian.

Suitable for use as control antibody for NAT-5 siRNA (h): sc-62662, NAT-5 siRNA (m): sc-62663, NAT-5 shRNA Plasmid (h): sc-62662-SH, NAT-5 shRNA Plasmid (m): sc-62663-SH, NAT-5 shRNA (h) Lentiviral Particles: sc-62662-V and NAT-5 shRNA (m) Lentiviral Particles: sc-62663-V.

Molecular Weight of NAT-5: 20 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209 or F9 cell lysate: sc-2245.

## **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (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.

## **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.



Try **NAT-5 (36-8): sc-100645**, our highly recommended monoclonal alternative to NAT-5 (H-86).

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