

NANP (H-52): sc-292567

BACKGROUND

Sialic acids are a family of 9-carbon 2-keto-3-deoxy sugars that are found on the ends of glycoproteins and glycolipids and play important roles in recognition events within the cell. Playing an important role in cell-cell and protein-protein recognition, N-acetylneuraminic acid is the main form of sialic acid in vertebrates. NANP (N-acetylneuraminic acid 9-phosphatase), also known as HDHD4 (haloacid dehalogenase-like hydrolase domain-containing protein 4), is a 248 amino acid protein that belongs to the haloacid dehalogenase (HAD) family and is responsible for dephosphorylating Neu5Ac-9-phosphate to form N-acetylneuraminic acid. Characteristic of the HAD phosphatase family, the catalytic activity of NANP is dependent upon the presence of magnesium and is inhibited by vanadate and calcium.

REFERENCES

1. Van Rinsum, J., et al. 1984. Subcellular localization and tissue distribution of sialic acid-forming enzymes. N-acetylneuraminic acid 9-phosphatase and N-acetylneuraminic acid 9-phosphatase. *Biochem. J.* 223: 323-328.
2. Lawrence, S.M., et al. 2000. Cloning and expression of the human N-acetylneuraminic acid phosphate synthase gene with 2-keto-3-deoxy-D-glycero-D-galacto-nononic acid biosynthetic ability. *J. Biol. Chem.* 275: 17869-17877.

CHROMOSOMAL LOCATION

Genetic locus: NANP (human) mapping to 20p11.21; Nanp (mouse) mapping to 2 G3.

SOURCE

NANP (H-52) is a rabbit polyclonal antibody raised against amino acids 42-93 mapping within an internal region of NANP 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.

APPLICATIONS

NANP (H-52) is recommended for detection of NANP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

NANP (H-52) is also recommended for detection of NANP in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for NANP siRNA (h): sc-75870, NANP siRNA (m): sc-149821, NANP shRNA Plasmid (h): sc-75870-SH, NANP shRNA Plasmid (m): sc-149821-SH, NANP shRNA (h) Lentiviral Particles: sc-75870-V and NANP shRNA (m) Lentiviral Particles: sc-149821-V.

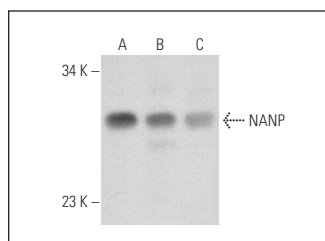
Molecular Weight of NANP: 30 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, HeLa whole cell lysate: sc-2200 or U-937 cell lysate: sc-2239.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



NANP (H-52): sc-292567. Western blot analysis of NANP expression in Jurkat (A), HeLa (B) and U-937 (C) whole cell lysates.

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.


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Try **NANP (D-8): sc-374637**, our highly recommended monoclonal alternative to NANP (H-52).