**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-acetyleneuraminate is the main form of sialic acid in vertebrates. NANP (N-acetylneuraminic acid-9-phosphatase), also known as HDH4 (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-acetyleneuraminate. 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**


**CHROMOSOMAL LOCATION**

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

**SOURCE**

NANP (D-8) is a mouse monoclonal antibody raised against amino acids 42-93 mapping within an internal region of NANP of human origin.

**PRODUCT**

Each vial contains 200 µg IgG2a kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**APPLICATIONS**

NANP (D-8) is recommended for detection of NANP 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), immunohistochemistry (including paraffin-embedded sections) (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 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: SH-SY5Y cell lysate: sc-3812, IMR-32 cell lysate: sc-2409 or F9 cell lysate: sc-2245.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGk BP-HRP: sc-516102 or m-IgGk BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), 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 m-IgGk BP-FITC: sc-516140 or m-IgGk 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**

NANP (D-8): sc-374637. Immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing cytoplasmic staining of squamous epithelial cells.

**RESEARCH USE**

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

**PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.