

NPP6 (G-9): sc-373900

BACKGROUND

NPP6, also known as ENPP6 (ectonucleotide pyrophosphatase/phosphodiesterase family member 6), is a 440 amino acid member of the nucleotide pyrophosphatase/phosphodiesterase family. NPP6 is a secreted and single-pass type I membrane protein. Predominantly expressed in brain and kidney, NPP6 is a choline-specific glycerophosphodiester phosphodiesterase. NPP6 can hydrolyze the classical substrate for phospholipase C, p-nitrophenyl phosphocholine, glycerophosphorylcholine, sphingosylphosphorylcholine and lysophosphatidylcholine (LPC). NPP6 has been found to have a preference for LPC with polyunsaturated or short fatty acids. The gene encoding NPP6 maps to human chromosome 4, which consists of approximately 6% of the human genome and nearly 900 genes. Chromosome 4 is associated with Huntington's disease, FGFR-3, Ellis-van Creveld syndrome, methylmalonic acidemia and polycystic kidney disease.

REFERENCES

1. Bonaventure, J., et al. 1996. Common mutations in the fibroblast growth factor receptor 3 (FGFR 3) gene account for achondroplasia, hypochondroplasia, and thanatophoric dwarfism. *Am. J. Med. Genet.* 63: 148-154.
2. Kalchman, M.A., et al. 1996. Huntingtin is ubiquitinated and interacts with a specific ubiquitin-conjugating enzyme. *J. Biol. Chem.* 271: 19385-19394.
3. Howard, T.D., et al. 1997. Autosomal dominant postaxial polydactyly, nail dystrophy, and dental abnormalities map to chromosome 4p16, in the region containing the Ellis-van Creveld syndrome locus. *Am. J. Hum. Genet.* 61: 1405-1412.
4. Singhrao, S.K., et al. 1998. Huntingtin protein colocalizes with lesions of neurodegenerative diseases: an investigation in Huntington's, Alzheimer's, and Pick's diseases. *Exp. Neurol.* 150: 213-222.

CHROMOSOMAL LOCATION

Genetic locus: ENPP6 (human) mapping to 4q35.1; Enpp6 (mouse) mapping to 8 B1.1.

SOURCE

NPP6 (G-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 53-81 within an N-terminal extracellular domain of NPP6 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-373900 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

NPP6 (G-9) is recommended for detection of NPP6 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).

NPP6 (G-9) is also recommended for detection of NPP6 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for NPP6 siRNA (h): sc-89237, NPP6 siRNA (m): sc-150054, NPP6 shRNA Plasmid (h): sc-89237-SH, NPP6 shRNA Plasmid (m): sc-150054-SH, NPP6 shRNA (h) Lentiviral Particles: sc-89237-V and NPP6 shRNA (m) Lentiviral Particles: sc-150054-V.

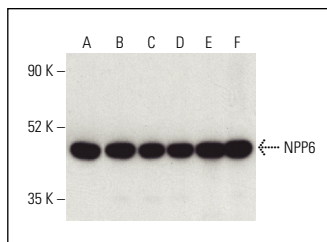
Molecular Weight of NPP6: 50 kDa.

Positive Controls: mouse brain extract: sc-2253, Neuro-2A whole cell lysate: sc-364185 or SK-N-SH cell lysate: sc-2410.

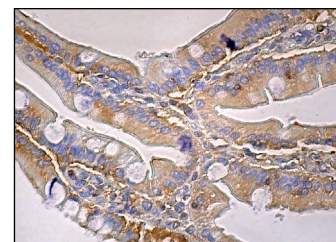
RECOMMENDED SUPPORT REAGENTS

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 L-Agarose: sc-2336 (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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohisto-mount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



NPP6 (G-9): sc-373900. Western blot analysis of NPP6 expression in SK-N-SH (A), Neuro-2A (B) and F9 (C) whole cell lysates and rat testis (D), human brain (E) and mouse brain (F) tissue extracts. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



NPP6 (G-9): sc-373900. Immunoperoxidase staining of formalin fixed, paraffin-embedded human duodenum tissue showing cytoplasmic staining of glandular cells.

RESEARCH USE

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