

NT5C3L (P-13): sc-136772

BACKGROUND

Nucleotidases are hydrolytic enzymes that catalyze the hydrolysis of nucleotides into phosphates and nucleosides. NT5C3 (5'-nucleotidase, cytosolic III), also known as P5N1 or UMPH1, is a 336 amino acid protein that exists as multiple alternatively spliced isoforms which localize to either the cytoplasm or the endoplasmic reticulum. Expressed in an isoform-specific manner in lymphocytes and reticulocytes, NT5C3 belongs to the pyrimidine 5'-nucleotidase family and exists as a monomer which acts as both a nucleotidase and a phosphotransferase, effectively catalyzing the conversion of a 5'-ribonucleotide to a ribonucleoside and a free phosphate. NT5C3L (5'-nucleotidase, cytosolic III-like), also known as cN-III-like protein, is a 292 amino acid cytoplasmic protein belonging to the pyrimidine 5'-nucleotidase family that also functions as a nucleotidase and a phosphotransferase.

REFERENCES

1. Amici, A., et al. 1994. Homogeneous pyrimidine nucleotidase from human erythrocytes: enzymic and molecular properties. *Biochem. J.* 304: 987-992.
2. Amici, A., et al. 2000. Human erythrocyte pyrimidine 5-nucleotidase, PN-I, is identical to p36, a protein associated to lupus inclusion formation in response to α -interferon. *Blood* 96: 1596-1598.
3. Balta, G., et al. 2003. Molecular characterization of Turkish patients with pyrimidine 5' nucleotidase-I deficiency. *Blood* 102: 1900-1903.
4. Rees, D.C., et al. 2003. Pyrimidine 5' nucleotidase deficiency. *Br. J. Haematol.* 120: 375-383.
5. Bianchi, P., et al. 2003. Molecular characterization of six unrelated Italian patients affected by pyrimidine 5'-nucleotidase deficiency. *Br. J. Haematol.* 122: 847-851.
6. Online Mendelian Inheritance in Man, OMIM™. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 606224. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: NT5C3L (human) mapping to 17q21.2; Nt5c3l (mouse) mapping to 11 D.

SOURCE

NT5C3L (P-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of NT5C3L of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-136772 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

NT5C3L (P-13) is recommended for detection of NT5C3L of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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); non cross-reactive with NT5C3 family members.

NT5C3L (P-13) is also recommended for detection of NT5C3L in additional species, including canine and bovine.

Suitable for use as control antibody for NT5C3L siRNA (h): sc-93563, NT5C3L siRNA (m): sc-150082, NT5C3L shRNA Plasmid (h): sc-93563-SH, NT5C3L shRNA Plasmid (m): sc-150082-SH, NT5C3L shRNA (h) Lentiviral Particles: sc-93563-V and NT5C3L shRNA (m) Lentiviral Particles: sc-150082-V.

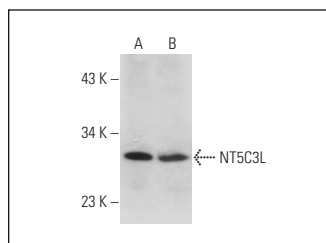
Molecular Weight of NT5C3L: 34 kDa.

Positive Controls: mouse placenta extract: sc-364247 or mouse stomach extract: sc-394628.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



NT5C3L (P-13): sc-136772. Western blot analysis of NT5C3L expression in mouse placenta (A) and mouse stomach (B) tissue extracts.

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.