

NT5C3L (A-7): sc-514431

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

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- Balta, G., et al. 2003. Molecular characterization of Turkish patients with pyrimidine 5' nucleotidase-I deficiency. *Blood* 102: 1900-1903.
- Rees, D.C., et al. 2003. Pyrimidine 5' nucleotidase deficiency. *Br. J. Haematol.* 120: 375-383.
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- Chiarelli, L.R., et al. 2005. Functional analysis of pyrimidine 5'-nucleotidase mutants causing nonspherocytic hemolytic anemia. *Blood* 105: 3340-3345.

CHROMOSOMAL LOCATION

Genetic locus: NT5C3B (human) mapping to 17q21.2; Nt5c3b (mouse) mapping to 11 D.

SOURCE

NT5C3L (A-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 3-19 near the N-terminus of NT5C3L of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} 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-514431 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

NT5C3L (A-7) is recommended for detection of NT5C3L of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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.

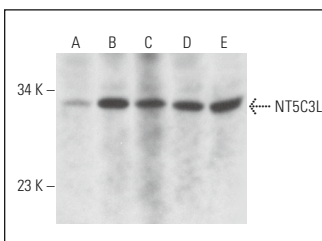
Molecular Weight of NT5C3L: 34 kDa.

Positive Controls: human liver extract: sc-363766, human testis extract: sc-363781 or human placenta extract: sc-363772.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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 A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ 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



NT5C3L (A-7): sc-514431. Western blot analysis of NT5C3L expression in human liver (A), human testis (B), human placenta (C) and human stomach (D) tissue extracts and Hep G2 whole cell lysate (E).

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 for detailed protocols and support products.