

NT5C3L (A-9): sc-398604

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

- Amici, A., et al. 1994. Homogeneous pyrimidine nucleotidase from human erythrocytes: enzymic and molecular properties. *Biochem. J.* 304: 987-992.
- 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.
- 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.

CHROMOSOMAL LOCATION

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

SOURCE

NT5C3L (A-9) is a mouse monoclonal antibody raised against amino acids 56-98 mapping near the N-terminus of NT5C3L of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

NT5C3L (A-9) is available conjugated to agarose (sc-398604 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398604 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398604 PE), fluorescein (sc-398604 FITC), Alexa Fluor[®] 488 (sc-398604 AF488), Alexa Fluor[®] 546 (sc-398604 AF546), Alexa Fluor[®] 594 (sc-398604 AF594) or Alexa Fluor[®] 647 (sc-398604 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-398604 AF680) or Alexa Fluor[®] 790 (sc-398604 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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RESEARCH USE

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

APPLICATIONS

NT5C3L (A-9) 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.

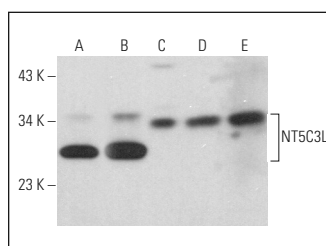
Molecular Weight of NT5C3L: 34 kDa.

Positive Controls: NT5C3L (h2): 293T Lysate: sc-113477, human liver extract: sc-363766 or human testis extract: sc-363781.

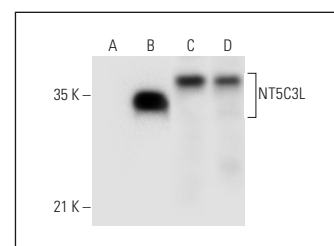
RECOMMENDED SUPPORT REAGENTS

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-9): sc-398604. Western blot analysis of NT5C3L expression in NTERA-2 cl.D1 (A), SK-BR-3 (B) and AT3B-1 (C) whole cell lysates and rat testis (D) and mouse testis (E) tissue extracts.



NT5C3L (C-6): sc-398604. Western blot analysis of NT5C3L expression in non-transfected: sc-117752 (A) and human NT5C3L transfected: sc-113477 (B) 293T whole cell lysates and human liver (C) and human testis (D) tissue extracts.

SELECT PRODUCT CITATIONS

- Kubacka, D., et al. 2022. Substrate-based design of cytosolic nucleotidase IIIB inhibitors and structural insights into inhibition mechanism. *Pharmaceuticals* 15: 554.

STORAGE

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