

NIT2 (C-13): sc-103073

BACKGROUND

NIT2 (nitrilase homolog 2) is a 276 amino acid cytoplasmic protein that belongs to the UPF0012 family and contains one CN hydrolase domain. NIT2 exists as a homodimer and has ω -amidase activity. The role of ω -amidase is to remove potentially toxic intermediates by converting α -ketoglutarate and α -ketosuccinamate to biologically useful α -ketoglutarate and oxaloacetate, respectively. Overexpression of NIT2 decreases the colony-forming capacity of cultured cells by arresting cells in the G₂ phase of the cell cycle. While highly expressed in fetal brain, NIT2 is also expressed in heart, brain, placenta, lung, liver, skeletal muscle, kidney, pancreas, prostate, spleen, thymus, testis, ovary, small intestine and colon. The gene that encodes NIT2 consists of nearly 21,000 bases and maps to human chromosome 3q12.2.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: NIT2 (human) mapping to 3q12.2.

SOURCE

NIT2 (C-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of NIT2 of human origin.

STORAGE

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

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-103073 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NIT2 (C-13) is recommended for detection of NIT2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 NIT1.

Suitable for use as control antibody for NIT2 siRNA (h): sc-78047, NIT2 shRNA Plasmid (h): sc-78047-SH and NIT2 shRNA (h) Lentiviral Particles: sc-78047-V.

Molecular Weight of NIT2: 31 kDa.

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) 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.

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.