

NUDT12 (N-16): sc-107280

BACKGROUND

NUDT12 (nudix (nucleoside diphosphate linked moiety X)-type motif 12) is a 462 amino acid peroxisomal protein belonging to the nudix hydrolase family and the NudC subfamily. Nudix hydrolases contain a characteristic nudix domain and are responsible for catalyzing the hydrolysis of nucleoside diphosphate derivatives. NUDT12 functions as a manganese-dependent polyphosphate phosphohydrolase at an optimum pH of 8-9. Containing three ANK repeats and a nudix hydrolase domain, NUDT12 may act to regulate the concentration of peroxisomal nicotinamide nucleotide cofactors, which are required for oxidative metabolism in peroxisomes. The gene encoding NUDT12 maps to human chromosome 5, which contains 181 million base pairs and comprises nearly 6% of the human genome. Deletion of the p arm of chromosome 5 leads to Cri du chat syndrome, while deletion of the q arm or of chromosome 5 altogether is common in therapy-related acute myelogenous leukemias and myelodysplastic syndrome.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: NUDT12 (human) mapping to 5q21.2; Nudt12 (mouse) mapping to 17 D.

SOURCE

NUDT12 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of NUDT12 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

PRODUCT

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

Blocking peptide available for competition studies, sc-107280 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NUDT12 (N-16) is recommended for detection of NUDT12 of mouse, rat and 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 other NUDT family members.

NUDT12 (N-16) is also recommended for detection of NUDT12 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for NUDT12 siRNA (h): sc-91746, NUDT12 siRNA (m): sc-150102, NUDT12 shRNA Plasmid (h): sc-91746-SH, NUDT12 shRNA Plasmid (m): sc-150102-SH, NUDT12 shRNA (h) Lentiviral Particles: sc-91746-V and NUDT12 shRNA (m) Lentiviral Particles: sc-150102-V.

Molecular Weight of NUDT12: 52 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

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.