

NUDT7 (F-20): sc-243640

BACKGROUND

NUDT7 (nucleoside diphosphate-linked moiety X motif 7), also known as peroxisomal coenzyme A diphosphatase NUDT7 or nudix motif 7, is a 238 amino acid protein that functions as a coenzyme A diphosphatase that mediates the cleavage of CoA into 3',5'-ADP and 4'-phosphopantetheine. Localized to the peroxisome, NUDT7 belongs to the nudix hydrolase family and PCD1 sub-family. NUDT7 is expressed in heart, spleen, liver, pancreas, pituitary, small intestine, kidney and placenta. NUDT7 contains one nudix hydrolase domain and is encoded by a gene that maps to human chromosome 16, which encodes over 900 genes and comprises nearly 3% of the human genome. The GAN gene is located on chromosome 16 and, with mutation, may lead to giant axonal neuropathy, a nervous system disorder characterized by increasing malfunction with growth. The rare disorder Rubinstein-Taybi syndrome is also associated with chromosome 16, as is Crohn's disease, which is a gastrointestinal inflammatory condition.

REFERENCES

- Baraitser, M. and Preece, M.A. 1983. The Rubinstein-Taybi syndrome: occurrence in two sets of identical twins. *Clin. Genet.* 23: 318-320.
- Breuning, M.H., et al. 1993. Rubinstein-Taybi syndrome caused by submicroscopic deletions within 16p13.3. *Am. J. Hum. Genet.* 52: 249-254.
- Bomont, P., et al. 2000. The gene encoding gigaxonin, a new member of the cytoskeletal BTB/kelch repeat family, is mutated in giant axonal neuropathy. *Nat. Genet.* 26: 370-374.
- Gasmi, L. and McLennan, A.G. 2001. The mouse *Nudt7* gene encodes a peroxisomal nudix hydrolase specific for coenzyme A and its derivatives. *Biochem. J.* 357: 33-38.
- Kuhlenbäumer, G., et al. 2002. Giant axonal neuropathy (GAN): case report and two novel mutations in the gigaxonin gene. *Neurology* 58: 1273-1276.
- Cho, J.H. 2004. Advances in the genetics of inflammatory bowel disease. *Curr. Gastroenterol. Rep.* 6: 467-473.

CHROMOSOMAL LOCATION

Genetic locus: NUDT7 (human) mapping to 16q23.1.

SOURCE

NUDT7 (F-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NUDT7 of human origin.

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-243640 P, (100 µg 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

NUDT7 (F-20) is recommended for detection of NUDT7 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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 other NUDT family members.

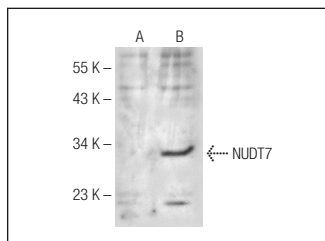
Molecular Weight of NUDT7: 27 kDa.

Positive Controls: NUDT7 (h): 293T Lysate: sc-372453.

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



NUDT7 (F-20): sc-243640. Western blot analysis of NUDT7 expression in non-transfected: sc-117752 (A) and human NUDT7 transfected: sc-372453 (B) 293T whole cell lysates.

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.


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Try **NUDT7 (E-9): sc-390911** or **NUDT7 (D-1): sc-515481**, our highly recommended monoclonal alternatives to NUDT7 (F-20).