

# NUDT22 (N-12): sc-109347

## BACKGROUND

NUDT22 (nudix (nucleoside diphosphate linked moiety X)-type motif 22) is a member of the nudix hydrolase family of pyrophosphatases. Nudix hydrolases contain a characteristic nudix domain and are responsible for catalyzing the hydrolysis of nucleoside diphosphate derivatives. NUDT22 is a 303 amino acid protein that lacks the nudix box, therefore lacking hydrolase activity. The gene encoding NUDT17 maps to human chromosome 11, which makes up around 4% of human genomic DNA and is considered a gene and disease association dense chromosome. The chromosome 11 encoded *Atm* gene is important for regulation of cell cycle arrest and apoptosis following double strand DNA breaks. *Atm* mutation leads to the disorder known as ataxia-telangiectasia. The blood disorders Sickle cell anemia and  $\beta$  thalassemia are caused by HBB gene mutations. Wilms' tumors, WAGR syndrome and Denys-Drash syndrome are associated with mutations of the WT1 gene.

## REFERENCES

1. Grossfeld, P.D., et al. 2004. The 11q terminal deletion disorder: a prospective study of 110 cases. *Am. J. Med. Genet. A* 129A: 51-61.
2. Zehelein, J., et al. 2006. Skipping of Exon 1 in the *KCNQ1* gene causes Jervell and Lange-Nielsen syndrome. *J. Biol. Chem.* 281: 35397-35403.
3. Loussouarn, G., et al. 2006. *KCNQ1* K<sup>+</sup> channel-mediated cardiac channelopathies. *Methods Mol. Biol.* 337: 167-183.
4. Taylor, T.D., et al. 2006. Human chromosome 11 DNA sequence and analysis including novel gene identification. *Nature* 440: 497-500.
5. Lee, S.P., et al. 2007. Phase I study of eptifibatid in patients with sickle cell anaemia. *Br. J. Haematol.* 139: 612-620.

## CHROMOSOMAL LOCATION

Genetic locus: NUDT22 (human) mapping to 11q13.1; Nudt22 (mouse) mapping to 19 A.

## SOURCE

NUDT22 (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of NUDT22 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-109347 P, (100  $\mu$ g 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

NUDT22 (N-12) is recommended for detection of NUDT22 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

NUDT22 (N-12) is also recommended for detection of NUDT22 in additional species, including canine.

Suitable for use as control antibody for NUDT22 siRNA (h): sc-96311, NUDT22 siRNA (m): sc-150110, NUDT22 shRNA Plasmid (h): sc-96311-SH, NUDT22 shRNA Plasmid (m): sc-150110-SH, NUDT22 shRNA (h) Lentiviral Particles: sc-96311-V and NUDT22 shRNA (m) Lentiviral Particles: sc-150110-V.

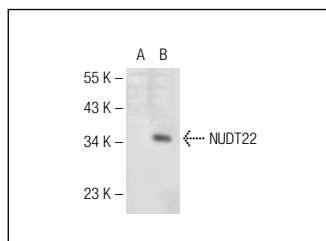
Molecular Weight of NUDT22: 33/23 kDa.

Positive Controls: NUDT22 (m): 293T Lysate: sc-122162.

## 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



NUDT22 (N-12): sc-109347. Western blot analysis of NUDT22 expression in non-transfected: sc-117752 (A) and mouse NUDT22 transfected: sc-122162 (B) 293T whole cell lysates.

## RESEARCH USE

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