# NUDT13 (A-15): sc-107033



The Power to Question

#### **BACKGROUND**

NUDT13 (nudix (nucleoside diphosphate linked moiety X)-type motif 13) is a 352 amino acid protein belonging to the Nudix hydrolase family of pyrophosphatases. Nudix hydrolases contain a characteristic Nudix domain and are responsible for catalyzing the hydrolysis of nucleoside diphosphate derivatives. Existing as two isoforms due to alternative splicing events, NUDT13 is highly expressed in metastasis-suppressed chromosome 6 melanoma hybrids. The gene encoding NUDT13 maps to human chromosome 10, which houses over 1,200 genes and comprises nearly 4.5% of the human genome. Defects in some of the genes that map to chromosome 10 are associated with Charcot-Marie Tooth disease, Jackson-Weiss syndrome, Usher syndrome, nonsyndromatic deafness, Wolman's syndrome, Cowden syndrome, multiple endocrine neoplasia type 2 and porphyria.

## **REFERENCES**

- Subramani, S. 1996. Convergence of model systems for peroxisome biogenesis. Curr. Opin. Cell Biol. 8: 513-518.
- Alimova-Kost, M.V., Imreh, S., Buchman, V.L. and Ninkina, N.N. 1998. Assignment1 of phosphotriesterase-related gene (PTER) to human chromosome band 10p12 by *in situ* hybridization. Cytogenet. Cell Genet. 83: 16-17.
- 3. Berger, P., Young, P. and Suter, U. 2002. Molecular cell biology of Charcot-Marie-Tooth disease. Neurogenetics 4: 1-15.
- 4. Nonneman, D. and Rohrer, G.A. 2004. Comparative mapping of human chromosome 10 to pig chromosomes 10 and 14. Anim. Genet. 35: 338-343.
- Kurochkin, I.V., Nagashima, T., Konagaya, A. and Schönbach, C. 2005.
  Sequence-based discovery of the human and rodent peroxisomal proteome.
  Appl. Bioinformatics 4: 93-104.
- Kurochkin, I.V., Mizuno, Y., Konagaya, A., Sakaki, Y., Schönbach, C. and Okazaki, Y. 2007. Novel peroxisomal protease TYSND1 processes PTS1- and PTS2-containing enzymes involved in β-oxidation of fatty acids. EMBO J. 26: 835-845.
- Kraszewska, E. 2008. The plant Nudix hydrolase family. Acta Biochim. Pol. 55: 663-671.
- 8. Lin, J., Tian, B. and Hua, Y. 2008. Structural and functional diversity of Nudix fold. Protein Pept. Lett. 15: 108-112.
- Garza, J.A., Ilangovan, U., Hinck, A.P. and Barnes, L.D. 2009. Kinetic, dynamic, ligand binding properties, and structural models of a dual-substrate specific Nudix hydrolase from *Schizosaccharomyces pombe*. Biochemistry 48: 6224-6239.

## CHROMOSOMAL LOCATION

Genetic locus: NUDT13 (human) mapping to 10q22.1; Nudt13 (mouse) mapping to 14 A3.

#### **SOURCE**

NUDT13 (A-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NUDT13 of human origin.

#### **PRODUCT**

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

Blocking peptide available for competition studies, sc-107033 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### **APPLICATIONS**

NUDT13 (A-15) is recommended for detection of NUDT13 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 NUDT13-2.

NUDT13 (A-15) is also recommended for detection of NUDT13 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for NUDT13 siRNA (h): sc-90368, NUDT13 siRNA (m): sc-150103, NUDT13 shRNA Plasmid (h): sc-90368-SH, NUDT13 shRNA Plasmid (m): sc-150103-SH, NUDT13 shRNA (h) Lentiviral Particles: sc-90368-V and NUDT13 shRNA (m) Lentiviral Particles: sc-150103-V.

Molecular Weight of NUDT13: 40 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.

# **STORAGE**

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

#### **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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