TYSND1 (S-12): sc-107120



The Power to Question

BACKGROUND

TYSND1 (trypsin domain containing 1), a member of the peptidase S1B family, is a 566 amino acid protein that is synthesized in the cytosol and is localized to the peroxisome where it exists as two proteolytically cleaved peptides. Functioning as a peroxisomal protease, TYSND1 participates in controlling the peroxisomal β -oxidation of fatty acids and also mediates both the removal of the leader peptide from proteins containing a PTS2 target sequence and the specific processing of PTS1 proteins. The gene encoding TYSND1 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.
 Assignment 1 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 PTS1and PTS2-containing enzymes involved in β-oxidation of fatty acids. EMBO J. 26: 835-845.
- 7. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 611017. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: TYSND1 (human) mapping to 10q22.1; Tysnd1 (mouse) mapping to 10 B4.

SOURCE

TYSND1 (S-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of TYSND1 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 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-107120 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TYSND1 (S-12) is recommended for detection of TYSND1 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).

TYSND1 (S-12) is also recommended for detection of TYSND1 in additional species, including equine and porcine.

Suitable for use as control antibody for TYSND1 siRNA (h): sc-90690, TYSND1 siRNA (m): sc-154828, TYSND1 shRNA Plasmid (h): sc-90690-SH, TYSND1 shRNA Plasmid (m): sc-154828-SH, TYSND1 shRNA (h) Lentiviral Particles: sc-90690-V and TYSND1 shRNA (m) Lentiviral Particles: sc-154828-V.

Molecular Weight of full length TYSND1: 59 kDa. Molecular Weight of processed TYSND1: 49 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) 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.

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