SANTA CRUZ BIOTECHNOLOGY, INC.

UXS1 (P-18): sc-244588



BACKGROUND

UXS1 (UDP-glucuronic acid decarboxylase 1), also known as UNQ2538, PR06079 or UGD, is a 420 amino acid single-pass type II membrane protein that belongs to the sugar epimerase family and the UDP-glucuronic acid decarboxylase subfamily. Interacting with Akt1, UXS1 catalyzes the NAD-dependent decarboxylation of UDP-glucuronic acid to UDP-xylose. UXS1 is also necessary for the biosynthesis of the core tetrasaccharide in glycosaminoglycan biosynthesis. The gene that encodes UXS1 maps to human chromosome 2q12.2. As the second largest human chromosome, chromosome 2 consists of 237 million bases encoding over 1,400 genes.

REFERENCES

- Moriarity, J.L., et al. 2002. UDP-glucuronate decarboxylase, a key enzyme in proteoglycan synthesis: cloning, characterization, and localization. J. Biol. Chem. 277: 16968-16975.
- Hwang, H.Y. and Horvitz, H.R. 2002. The SQV-1 UDP-glucuronic acid decarboxylase and the SQV-7 nucleotide-sugar transporter may act in the Golgi apparatus to affect Caenorhabditis elegans vulval morphogenesis and embryonic development. Proc. Natl. Acad. Sci. USA 99: 14218-14223.
- Wang, D.Q. 2007. Regulation of intestinal cholesterol absorption. Annu. Rev. Physiol. 69: 221-248.
- Tabas, I. 2007. A two-carbon switch to sterol-induced autophagic death. Autophagy 3: 38-41.
- Marshall, J.D., et al. 2007. Alström syndrome. Eur. J. Hum. Genet. 15: 1193-1202.
- Marshall, J.D., et al. 2007. Spectrum of ALMS1 variants and evaluation of genotype-phenotype correlations in Alström syndrome. Hum. Mutat. 28: 1114-1123.
- Bakker, H., et al. 2009. Functional UDP-xylose transport across the endoplasmic reticulum/Golgi membrane in a Chinese hamster ovary cell mutant defective in UDP-xylose Synthase. J. Biol. Chem. 284: 2576-2583.
- 8. Wiweger, M.I., et al. 2011. Cartilage ultrastructure in proteoglycan-deficient zebrafish mutants brings to light new candidate genes for human skeletal disorders. J. Pathol. 223: 531-542.

CHROMOSOMAL LOCATION

Genetic locus: UXS1 (human) mapping to 2q12.2; Uxs1 (mouse) mapping to 1 C1.1.

SOURCE

UXS1 (P-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of UXS1 of human origin.

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-244588 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

UXS1 (P-18) is recommended for detection of UXS1 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).

UXS1 (P-18) is also recommended for detection of UXS1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for UXS1 siRNA (h): sc-94580, UXS1 siRNA (m): sc-154962, UXS1 shRNA Plasmid (h): sc-94580-SH, UXS1 shRNA Plasmid (m): sc-154962-SH, UXS1 shRNA (h) Lentiviral Particles: sc-94580-V and UXS1 shRNA (m) Lentiviral Particles: sc-154962-V.

Molecular Weight of UXS1 isoforms: 48/48/28 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) Immunofluo-rescence: 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.