

CHSY1 (D-20): sc-50543

BACKGROUND

Chondroitin sulfate synthases (CHSYs) synthesize chondroitin sulfate, a glycosaminoglycan expressed on the surface of most cells and in extracellular matrices. Glycosaminoglycan chains are covalently linked to various core protein families and regulate many biologic processes, including extracellular matrix deposition, cell proliferation, and recognition and morphogenesis. The CHSY family includes CHSY1, CHSY2 and CHSY3. CHSY1 and CHSY3 display both glucuronyltransferase and N-acetylgalactosaminyltransferase activities, while CHSY2 is required for chondroitin polymerizing activity. CHSY1 localizes to the Golgi apparatus and is expressed ubiquitously, with highest expression in the placenta. Lower levels of CHSY1 are detected in the brain, thymus, skeletal muscle, heart, peripheral blood leukocytes, mammary gland, colon, spleen, kidney, liver, adrenal gland, stomach, small intestine and lung.

REFERENCES

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2. Kitagawa, H., et al. 2001. Molecular cloning and expression of a human chondroitin synthase. J. Biol. Chem. 276: 38721-38726.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 608183. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Kitagawa, H., et al. 2003. Molecular cloning of a chondroitin polymerizing factor that cooperates with chondroitin synthase for chondroitin polymerization. J. Biol. Chem. 278: 23666-23671.
5. Mizuguchi, S., et al. 2003. Chondroitin proteoglycans are involved in cell division of *Caenorhabditis elegans*. Nature 423: 443-448.
6. Yada, T., et al. 2003. Chondroitin sulfate synthase-3. Molecular cloning and characterization. J. Biol. Chem. 278: 39711-39725.

CHROMOSOMAL LOCATION

Genetic locus: CHSY1 (human) mapping to 15q26.3; Chsy1 (mouse) mapping to 7 C.

SOURCE

CHSY1 (D-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of CHSY1 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-50543 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

CHSY1 (D-20) is recommended for detection of CHSY1 of mouse, rat and 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).

CHSY1 (D-20) is also recommended for detection of CHSY1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for CHSY1 siRNA (h): sc-60379, CHSY1 siRNA (m): sc-60380, CHSY1 shRNA Plasmid (h): sc-60379-SH, CHSY1 shRNA Plasmid (m): sc-60380-SH, CHSY1 shRNA (h) Lentiviral Particles: sc-60379-V and CHSY1 shRNA (m) Lentiviral Particles: sc-60380-V.

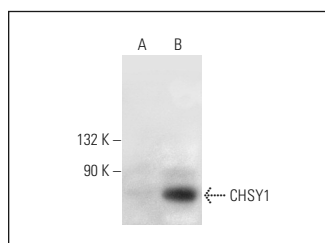
Molecular Weight of CHSY1: 66 kDa.

Positive Controls: Ramos cell lysate: sc-2216 or CHSY1 (h): 293T Lysate: sc-115758.

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



CHSY1 (D-20): sc-50543. Western blot analysis of CHSY1 expression in non-transfected 293T: sc-117752 (A) and human CHSY1 transfected 293T: sc-115758 (B) 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.