



CHSY1 (h): 293T Lysate: sc-115758

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 of 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

1. Nagase, T., et al. 1999. Prediction of the coding sequences of unidentified human genes. XIII. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. DNA Res. 6: 63-70.
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.
7. Yin, L., et al. 2005. Chondroitin synthase 1 is a key molecule in myeloma cell-osteoclast interactions. J. Biol. Chem. 280: 15666-15672.

CHROMOSOMAL LOCATION

Genetic locus: CHSY1 (human) mapping to 15q26.3.

PRODUCT

CHSY1 (h): 293T Lysate represents a lysate of human CHSY1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

CHSY1 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive CHSY1 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

RESEARCH USE

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

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.