

CHSY2 (m): 293T Lysate: sc-119254

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. CHSY2 localizes to the Golgi apparatus and is expressed ubiquitously, with highest expression observed in pancreas, ovary, brain, heart, skeletal muscle, colon, kidney, liver, stomach, small intestine and placenta.

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-2. Molecular cloning and characterization of a novel human glycosyltransferase homologous to chondroitin sulfate glucuronyltransferase, which has dual enzymatic activities. J. Biol. Chem. 278: 30235-30247.
7. Yada, T., et al. 2003. Chondroitin sulfate synthase-3. Molecular cloning and characterization. J. Biol. Chem. 278: 39711-39725.
8. Yin, L. 2005. Chondroitin synthase 1 is a key molecule in myeloma cell-osteoclast interactions. J. Biol. Chem. 280: 15666-15672.

CHROMOSOMAL LOCATION

Genetic locus: Chpf (mouse) mapping to 1 C4.

PRODUCT

CHSY2 (m): 293T Lysate represents a lysate of mouse CHSY2 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

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.

APPLICATIONS

CHSY2 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive CHSY2 antibodies. Recommended use: 10-20 µl per lane.

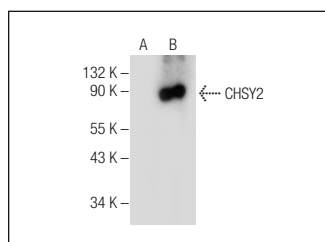
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

CHSY2 (E-5): sc-376183 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse CHSY2 expression in CHSY2 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

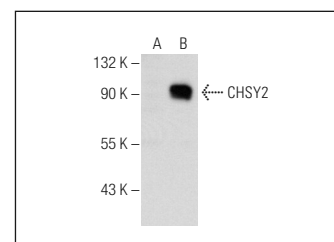
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker[™] compatible goat anti-mouse IgG-HRP: sc-2031 (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.

DATA



CHSY2 (E-5): sc-376183. Western blot analysis of CHSY2 expression in non-transfected: sc-117752 (A) and mouse CHSY2 transfected: sc-119254 (B) 293T whole cell lysates.



CHSY2 (N-20): sc-50549. Western blot analysis of CHSY2 expression in non-transfected: sc-117752 (A) and mouse CHSY2 transfected: sc-119254 (B) 293T 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.