

Sialyltransferase 7B (P-20): sc-68805

BACKGROUND

Sialyltransferase 7B, also known as ST6GALNAC2, STHM, SIAT7, SAITL1 or SIAT7B, is a 374 amino acid single-pass type II protein that localizes to the membrane of the golgi apparatus. Expressed in lung, kidney, heart, placenta and skeletal muscle, Sialyltransferase 7B functions to catalyze the addition of sialic acid residues to the non-reducing ends of glycoconjugates, an event that is important for protein targeting, bacterial adhesion and cell-cell interactions. Sialyltransferase 7B expression is downregulated in prostate and breast cancer cells, implying a role in growth inhibition. Human Sialyltransferase 7B, which shares 75% sequence identity with its mouse counterpart, is encoded by a gene that maps to chromosome 17.

REFERENCES

- Samyn-Petit, B., Krzewinski-Recchi, M.A., Steelant, W.F., Delannoy, P. and Harduin-Lepers, A. 2000. Molecular cloning and functional expression of human ST6GalNAc II. Molecular expression in various human cultured cells. *Biochim. Biophys. Acta* 1474: 201-211.
- Sotiropoulou, G., Kono, M., Anisowicz, A., Stenman, G., Tsuji, S. and Sager, R. 2002. Identification and functional characterization of a human GalNAc α 2,6-sialyltransferase with altered expression in breast cancer. *Mol. Med.* 8: 42-55.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 610137. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Colland, F., Jacq, X., Trouplin, V., Mouglin, C., Groizeleau, C., Hamburger, A., Meil, A., Wojcik, J., Legrain, P. and Gauthier, J.M. 2004. Functional proteomics mapping of a human signaling pathway. *Genome Res.* 14: 1324-1332.
- Li, G.S., Zhu, L., Zhang, H., Lv, J.C., Ding, J.X., Zhao, M.H., Shen, Y. and Wang, H.Y. 2007. Variants of the ST6GALNAC2 promoter influence transcriptional activity and contribute to genetic susceptibility to IgA nephropathy. *Hum. Mutat.* 28: 950-957.

CHROMOSOMAL LOCATION

Genetic locus: ST6GANAC2 (human) mapping to 17q25.1; St6galnac2 (mouse) mapping to 11 E2.

SOURCE

Sialyltransferase 7B (P-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Sialyltransferase 7B of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-68805 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

Sialyltransferase 7B (P-20) is recommended for detection of Sialyltransferase 7B of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

Sialyltransferase 7B (P-20) is also recommended for detection of Sialyltransferase 7B in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Sialyltransferase 7B siRNA (h): sc-63016, Sialyltransferase 7B siRNA (m): sc-63017, Sialyltransferase 7B shRNA Plasmid (h): sc-63016-SH, Sialyltransferase 7B shRNA Plasmid (m): sc-63017-SH, Sialyltransferase 7B shRNA (h) Lentiviral Particles: sc-63016-V and Sialyltransferase 7B shRNA (m) Lentiviral Particles: sc-63017-V.

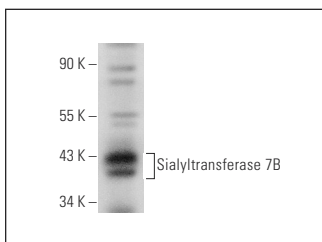
Molecular Weight of Sialyltransferase 7B: 42 kDa.

Positive Controls: rat heart extract: sc-2393.

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



Sialyltransferase 7B (P-20): sc-68805. Western blot analysis of Sialyltransferase 7B expression in rat heart tissue extract.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

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