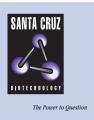
# SANTA CRUZ BIOTECHNOLOGY, INC.

# GalNAc4ST-1 (M-20): sc-49014



# BACKGROUND

Sulfotransferase enzymes catalyze the sulfate conjugation of many hormones, neurotransmitters, drugs and xenobiotic compounds. These cytosolic enzymes differ in their tissue distributions and substrate specificity, but the gene structure (number and length of exons) is similar among family members. GaINAc-4-sulfotransferase (GaINAc4ST-1), also designated carbohydrate sulfotransferase 8 (CHST8), is a member of a family of sulfotransferase that includes chondroitin-4-sulfotransferases-1–3, HNK-1 sulfotransferase and dermatan-4-sulfotransferase-1. The GaINAc4ST-1 protein displays 28% identity to chondroitin-4-sulfotransferase-1 (C4ST-1), 26% to chondroitin 4-sulfotransferase sulfate to the C-4 hydroxy group of nonreducing terminal GaINAc residues and shows higher expression in regions of the brain such as the pituitary and cerebellum.

# REFERENCES

- Xia, G., Evers, M.R., Kang, H.G., Schachner, M. and Baenziger, J.U. 2000. Molecular cloning and expression of the pituitary glycoprotein hormone N-acetylgalactosamine-4-O-sulfotransferase. J. Biol. Chem. 275: 38402-38409.
- Okuda, T., Sawada, T., Nakano, H., Matsubara, K., Matsuda, Y., Fukuta, M. and Habuchi, O. 2003. Mouse N-acetylgalactosamine-4-sulfotransferases-1 and -2. Molecular cloning, expression, chromosomal mapping and detection of their activity with GalNAcβ1-4GlcNAcβ1-octyl. J. Biochem. 134: 111-120.
- Baenziger, J.U. 2003. Glycoprotein hormone GalNAc-4-sulfotransferase. Biochem. Soc. Trans. 31: 326-330.
- Boregowda, R.K., Mi, Y., Bu, H. and Baenziger, J.U. 2005. Differential expression and enzymatic properties of GalNAc-4-sulfotransferase-1 and GalNAc-4-sulfotransferase-2. Glycobiology 15: 1349-1358.
- 5. Barret, A., Forestier, L., Deslys, J.P., Julien, R. and Gallet, P.F. 2005. Glycosylation-related gene expression in prion diseases: PrPSc accumulation in scrapie infected GT1 cells depends on  $\beta$ -1,4-linked GalNAc-4-SO4 hyposulfation. J. Biol. Chem. 280: 10516-10523.

#### CHROMOSOMAL LOCATION

Genetic locus: CHST8 (human) mapping to 19q13.1; Chst8 (mouse) mapping to 7 B3-B5.

# SOURCE

GaINAc4ST-1 (M-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of GaINAc4ST-1 of mouse origin.

#### PRODUCT

Each vial contains 200  $\mu$ g lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-49014 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

# APPLICATIONS

GalNAc4ST-1 (M-20) is recommended for detection of GalNAc4ST-1 of mouse and rat 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).

Suitable for use as control antibody for GalNAc4ST-1 siRNA (m): sc-60692.

Molecular Weight of GalNAc4ST-1: 48 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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

## **STORAGE**

Store at 4° C, \*\*D0 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.