

CHST7 (L-18): sc-68032

BACKGROUND

Sulfotransferase enzymes catalyze the sulfate conjugation of many hormones, neurotransmitters, drugs and xenobiotic compounds. These enzymes differ in their tissue distributions and substrate specificities, although the gene structure (number and length of exons) is similar among family members. CHST7 (carbohydrate (N-acetylglucosamine 6-O) sulfotransferase 7), also known as C6ST-2 (chondroitin 6-sulfotransferase 2), Gn6st-4 (N-acetylglucosamine 6-O-sulfotransferase 4) or GST-5 (galactose/N-acetylglucosamine/N-acetylglucosamine 6-O-sulfotransferase 5), is a 486 amino acid protein that belongs to the sulfotransferase 1 family and Gal/GlcNAc/GalNAc subfamily. A single-pass type II membrane protein of the Golgi apparatus membrane, CHST7 is widely expressed and is known to catalyze the transfer of sulfate to position 6 of non-reducing N-acetylglucosamine (GlcNAc) residues.

REFERENCES

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2. Kitagawa, H., et al. 2000. Molecular cloning and expression of a novel chondroitin 6-O-sulfotransferase. *J. Biol. Chem.* 275: 21075-21080.
3. Bhakta, S., et al. 2000. Sulfation of N-acetylglucosamine by chondroitin 6-sulfotransferase 2 (GST-5). *J. Biol. Chem.* 275: 40226-40234.
4. Online Mendelian Inheritance in Man, OMIM[™]. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 300375. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Chen, L., et al. 2004. Role of the carboxyl-terminal region in the activity of N-acetylglucosamine 6-o-sulfotransferase-1. *J. Biochem.* 136: 659-664.
6. Tjew, S.L., et al. 2005. Expression of N-acetylglucosamine 6-O-sulfotransferases (GlcNAc6STs)-1 and -4 in human monocytes: GlcNAc6ST-1 is implicated in the generation of the 6-sulfo N-acetylglucosamine/Lewis x epitope on CD44 and is induced by TNF α . *Glycobiology* 15: 7C-13C.

CHROMOSOMAL LOCATION

Genetic locus: CHST7 (human) mapping to Xp11.23; Chst7 (mouse) mapping to X A1.3.

SOURCE

CHST7 (L-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CHST7 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-68032 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4 $^{\circ}$ C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

CHST7 (L-18) is recommended for detection of CHST7 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).

CHST7 (L-18) is also recommended for detection of CHST7 in additional species, including bovine and porcine.

Suitable for use as control antibody for CHST7 siRNA (h): sc-62120, CHST7 siRNA (m): sc-62121, CHST7 shRNA Plasmid (h): sc-62120-SH, CHST7 shRNA Plasmid (m): sc-62121-SH, CHST7 shRNA (h) Lentiviral Particles: sc-62120-V and CHST7 shRNA (m) Lentiviral Particles: sc-62121-V.

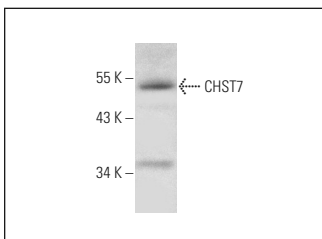
Molecular Weight of CHST7: 54 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

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



CHST7 (L-18): sc-68032. Western blot analysis of CHST7 expression in Jurkat whole cell lysate.

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.