

# CHST7 (Z-24): sc-133459

## 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- $\alpha$ . *Glycobiology* 15: 7C-13C.
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## CHROMOSOMAL LOCATION

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

## SOURCE

CHST7 (Z-24) is a Protein A purified rabbit polyclonal antibody raised against synthetic CHST7 peptide of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

## RESEARCH USE

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

## APPLICATIONS

CHST7 (Z-24) is recommended for detection of CHST7 of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

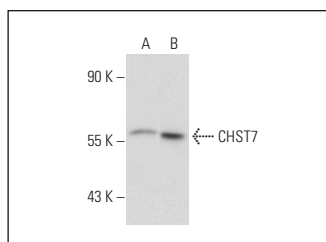
Molecular Weight of CHST7: 54 kDa.

Positive Controls: CHST7 (m): 293T Lysate: sc-119253 or Jurkat whole cell lysate: sc-2204.

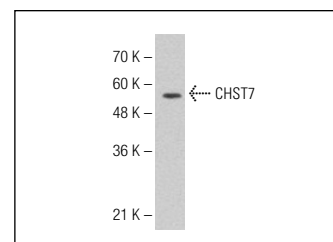
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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).

## DATA



CHST7 (Z-24): sc-133459. Western blot analysis of CHST7 expression in non-transfected: sc-117752 (A) and mouse CHST7 transfected: sc-119253 (B) 293T whole cell lysates.



CHST7 (Z-24): sc-133459. Western blot analysis of CHST7 expression in Jurkat whole cell lysate.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.