

CHST1 (S-20): sc-65031

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. Carbohydrate sulfotransferase 1 (CHST1), also referred to as KSGal6ST or KSST, is a keratan sulfate sulfotransferase. It is predominantly expressed in brain and skeletal muscle and localizes to the *trans*-Golgi network. CHST1 is responsible for mediating the sulfation of keratan in the cornea, which is important in maintaining corneal transparency. In particular, CHST1 catalyzes the transfer of sulfate groups from 3'-phosphoadenosine 5'-phosphosulfate to position six of internal or terminal galactose residues (preferentially the residues adjacent to sulfated GlcNAc) on growing keratan sulfate chains. CHST1 also contributes to the generation of L-Selectin ligands. Mutations in the CHST1 gene may play a role in macular corneal dystrophy (MCD).

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: CHST1 (human) mapping to 11p11.2; Chst1 (mouse) mapping to 2 E1.

SOURCE

CHST1 (S-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CHST1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-65031 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CHST1 (S-20) is recommended for detection of CHST1 of mouse, rat and human 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).

CHST1 (S-20) is also recommended for detection of CHST1 in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for CHST1 siRNA (h): sc-62110, CHST1 siRNA (m): sc-62111, CHST1 shRNA Plasmid (h): sc-62110-SH, CHST1 shRNA Plasmid (m): sc-62111-SH, CHST1 shRNA (h) Lentiviral Particles: sc-62110-V and CHST1 shRNA (m) Lentiviral Particles: sc-62111-V.

Molecular Weight of CHST1: 47 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™ 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) 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.

STORAGE

Store at 4° C, **DO 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.