

HS6ST1 (Y-16): sc-109943

BACKGROUND

Heparan sulfate structures, which are responsible for executing multiple biologic activities, are generated and regulated by heparan sulfate (HS) biosynthetic enzymes. HS6ST1 (heparan sulfate 6-O-sulfotransferase 1), also known as HS6ST, is a 411 amino acid single-pass type II membrane protein that exists as multiple alternatively spliced isoforms and belongs to the sulfotransferase 6 family. Expressed in fetal brain, HS6ST1 functions as a 6-O-sulfation enzyme that specifically catalyzes the transfer of sulfate from 3'-phosphoadenosine 5'-phosphosulfate (PAPS) to the N-sulfoglucosamine residue (GlcNS) HS. HS6ST1 is subject to post-translational N-glycosylation and is encoded by a functional gene on human chromosome 2 and a pseudogene on human chromosome 1 (known as LOC728969).

CHROMOSOMAL LOCATION

Genetic locus: HS6ST1 (human) mapping to 2q14.3, Hs6st1 (mouse) mapping to 1 B.

SOURCE

HS6ST1 (Y-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HS6ST1 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-109943 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

HS6ST1 (Y-16) is recommended for detection of HS6ST1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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); non cross-reactive with family members HS6ST2 or HS6ST3.

HS6ST1 (Y-16) is also recommended for detection of HS6ST1 in additional species, including bovine, porcine and avian.

Suitable for use as control antibody for HS6ST1 siRNA (h): sc-94375, HS6ST1 siRNA (m): sc-146089, HS6ST1 shRNA Plasmid (h): sc-94375-SH, HS6ST1 shRNA Plasmid (m): sc-146089-SH, HS6ST1 shRNA (h) Lentiviral Particles: sc-94375-V and HS6ST1 shRNA (m) Lentiviral Particles: sc-146089-V.

Molecular Weight (predicted) of HS6ST1: 48 kDa.

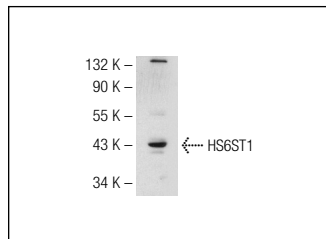
Molecular Weight (observed) of HS6ST1: 43 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210.

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



HS6ST1 (Y-16): sc-109943. Western blot analysis of HS6ST1 expression in NIH/3T3 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.

MONOS
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Try **HS6ST1 (C-9): sc-398231**, our highly recommended monoclonal alternative to HS6ST1 (Y-16).