

HS3ST2 (P-12): sc-107227

BACKGROUND

Heparan sulfate structures, which are responsible for executing multiple biologic activities, are generated and regulated by heparan sulfate biosynthetic enzymes. HS3ST2 (heparan sulfate (glucosamine) 3-O-sulfotransferase 2), also known as 3OST2, is a 367 amino acid single-pass type II membrane protein that localizes to the Golgi apparatus and belongs to the heparan sulfate biosynthetic enzyme family. Expressed at high levels in brain and present at lower levels in placenta, lung, heart and skeletal muscle, HS3ST2 functions to catalyze the transfer of a sulfuryl group to an N-unsubstituted glucosamine linked to a 2-O-sulfo iduronic acid unit on heparan sulfate. Via its catalytic activity, HS3ST2 may play a role in the nervous system, specifically in heparan sulfate-dependent neurobiologic events. The gene encoding HS3ST2 maps to human chromosome 16, which houses over 900 genes and comprises nearly 3% of the human genome.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: HS3ST2 (human) mapping to 16p12.2; Hs3st2 (mouse) mapping to 7 F2.

SOURCE

HS3ST2 (P-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HS3ST2 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-107227 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HS3ST2 (P-12) is recommended for detection of HS3ST2 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); non cross-reactive with other HS3ST family members.

HS3ST2 (P-12) is also recommended for detection of HS3ST2 in additional species, including bovine.

Suitable for use as control antibody for HS3ST2 siRNA (h): sc-93072, HS3ST2 siRNA (m): sc-146084, HS3ST2 shRNA Plasmid (h): sc-93072-SH, HS3ST2 shRNA Plasmid (m): sc-146084-SH, HS3ST2 shRNA (h) Lentiviral Particles: sc-93072-V and HS3ST2 shRNA (m) Lentiviral Particles: sc-146084-V.

Molecular Weight of HS3ST2: 42 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.