

Sulf-1 (N-14): sc-98153

BACKGROUND

Sulf-1 (sulfatase 1), also known as HSULF-1, is an 871 amino acid protein that localizes to both the endoplasmic reticulum and the Golgi apparatus and belongs to the sulfatase family. Members of the sulfatase family each contain a conserved active site with a posttranslationally generated α -formylglycine that is essential for their catalytic activity. These enzymes are responsible for the hydrolysis of sulfate ester bonds. Sulf-1 and Sulf-2 (sulfatase 2) specifically interact with heparin sulfate proteoglycans (HSPGs) and hydrolyze glucosamine-6-sulfate modifications, thus regulating the interactions of HSPGs with a variety of signaling molecules. As key components of cell surfaces and extracellular matrices, HSPGs modulate growth factor activities and thereby influence cell growth and differentiation. Additionally, HSPGs play a critical role in regulating tumor cell metastasis by mediating cell adhesion and the activities of growth and angiogenic factors. This suggests an important role for Sulf-1 and Sulf-2 in tumor progression.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SULF1 (human) mapping to 8q13.2; Sulf1 (mouse) mapping to 1 A3.

SOURCE

Sulf-1 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of Sulf-1 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-98153 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Sulf-1 (N-14) is recommended for detection of Sulf-1 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 Sulf-2.

Sulf-1 (N-14) is also recommended for detection of Sulf-1 in additional species, including avian.

Suitable for use as control antibody for Sulf-1 siRNA (h): sc-77686, Sulf-1 siRNA (m): sc-153919, Sulf-1 shRNA Plasmid (h): sc-77686-SH, Sulf-1 shRNA Plasmid (m): sc-153919-SH, Sulf-1 shRNA (h) Lentiviral Particles: sc-77686-V and Sulf-1 shRNA (m) Lentiviral Particles: sc-153919-V.

Molecular Weight of unprocessed Sulf-1 precursor: 100 kDa.

Molecular Weight of glycosylated Sulf-1: 132 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

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.