SANTA CRUZ BIOTECHNOLOGY, INC.

GNS (T-16): sc-161670

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

GNS (glucosamine (N-acetyl)-6-sulfatase), also known as G6S (glucosamine-6-sulfatase), is a 552 amino acid lysosomal enzyme that hydrolyzes the 6-sulfate groups of the N-acetyl-D-glucosamine 6-sulfate units of keratan sulfate and heparan sulfate. A member of the sulfatase family, GNS assists in the catabolism of heparin, and binds calcium as a cofactor. GNS deficiency results in an autosomal recessive lysosomal storage disorder known as mucopolysaccharidosis type IIID (sanfilippo D syndrome), which is characterized by mild somatic disease and severe degeneration of the central nervous system. Subject to post-translational internal peptidase cleavage, GNS is encoded by a gene mapping to human chromosome 12q14.3 and mouse chromosome 10 D2.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: GNS (human) mapping to 12q14.3; Gns (mouse) mapping to 10 D2.

SOURCE

GNS (T-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of GNS 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-161670 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GNS (T-16) is recommended for detection of GNS 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).

GNS (T-16) is also recommended for detection of GNS in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for GNS siRNA (h): sc-96024, GNS siRNA (m): sc-145660, GNS shRNA Plasmid (h): sc-96024-SH, GNS shRNA Plasmid (m): sc-145660-SH, GNS shRNA (h) Lentiviral Particles: sc-96024-V and GNS shRNA (m) Lentiviral Particles: sc-145660-V.

Molecular Weight of GNS: 62 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.