SANTA CRUZ BIOTECHNOLOGY, INC.

NAGAT (G-14): sc-50848

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Histo-blood group ABO system transferase (NAGAT) is a member of the glycosyltransferase 6 family of proteins and the basis of the ABO blood group system. The histo-blood group ABO involves three carbohydrate antigens: A, B and H; the NAGAT protein functions as the basis of this group. A, B and AB individuals express a glycosyltransferase activity converting the H antigen to the A antigen (by addition of UDP-GalNAc) or to the B antigen (by addition of UDP-Gal), while O individuals do not express this glycosyltransferase activity. The B phenotype of NAGAT differs from the A form by a few residue substitutions, whereas the O form is a result of a single base frame-shift deletion in the N-terminal extremity of the gene. The NAGAT protein localizes to the Golgi apparatus and its conserved DXD motif functions in cofactor binding.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: ABO (human) mapping to 9q34.2; Abo (mouse) mapping to 2 A3.

SOURCE

NAGAT (G-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of NAGAT 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-50848 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NAGAT (G-14) is recommended for detection of NAGAT 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).

NAGAT (G-14) is also recommended for detection of NAGAT in additional species, including porcine.

Suitable for use as control antibody for NAGAT siRNA (h): sc-61138, NAGAT siRNA (m): sc-61139, NAGAT shRNA Plasmid (h): sc-61138-SH, NAGAT shRNA Plasmid (m): sc-61139-SH, NAGAT shRNA (h) Lentiviral Particles: sc-61138-V and NAGAT shRNA (m) Lentiviral Particles: sc-61139-V.

Molecular Weight of NAGAT: 41 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.