

GNA1 (N-13): sc-47003

BACKGROUND

Glucosamine 6-phosphate N-acetyltransferase (GNA1), also designated phosphoglucosamine transacetylase or phosphoglucosamine acetylase, belongs to the GNA1 subfamily of the larger acetyltransferase family of proteins. GNA1, a peripheral membrane protein containing one N-acetyltransferase domain, is expressed in the colon and maps to cytoband 14q22.1. The protein localizes to the Golgi apparatus and the endosome. It is important for UDP-GlcNAc biosynthesis pathway. GNA1 catalyzes the synthesis of GlcNAc6P from AcCoA and GlcN6P, a step in the UDP-GlcNAc6P formation pathway.

REFERENCES

- Boehmelt, G., Fialka, I., Brothers, G., McGinley, M.D., Patterson, S.D., Mo, R., Hui, C.C., Chung, S., Huber, L.A., Mak, T.W. and Iscove, N.N. 2000. Cloning and characterization of the murine glucosamine-6-phosphate acetyltransferase EMeg32. Differential expression and intracellular membrane association. *J. Biol. Chem.* 275: 12821-12832.
- Boehmelt, G., Wakeham, A., Elia, A., Sasaki, T., Plyte, S., Potter, J., Yang, Y., Tsang, E., Ruland, J., Iscove, N.N., Dennis, J.W. and Mak, T.W. 2000. Decreased UDP-GlcNAc lev cells. *EMBO J.* 19: 5092-5104.

CHROMOSOMAL LOCATION

Genetic locus: GNPAT1 (human) mapping to 14q22.1; Gnpnat1 (mouse) mapping to 14 C1.

SOURCE

GNA1 (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of GNA1 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-47003 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GNA1 (N-13) is recommended for detection of GNA1 of mouse 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).

GNA1 (N-13) is also recommended for detection of GNA1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for GNA1 siRNA (h): sc-60709, GNA1 siRNA (m): sc-60710, GNA1 shRNA Plasmid (h): sc-60709-SH, GNA1 shRNA Plasmid (m): sc-60710-SH, GNA1 shRNA (h) Lentiviral Particles: sc-60709-V and GNA1 shRNA (m) Lentiviral Particles: sc-60710-V.

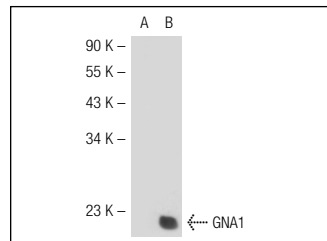
Molecular Weight of GNA1: 23 kDa.

Positive Controls: GNA1 (m): 293T Lysate: sc-120547.

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



GNA1 (N-13): sc-47003. Western blot analysis of GNA1 expression in non-transfected: sc-117752 (A) and mouse GNA1 transfected: sc-120547 (B) 293T whole cell lysates.

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.


 MONOS
Satisfaction
Guaranteed

Try **GNA1 (A-3): sc-374519** or **GNA1 (15): sc-136518**, our highly recommended monoclonal alternatives to GNA1 (N-13).