

GnT-III (N-20): sc-27276

BACKGROUND

GnT-III (also designated N-acetylglucosaminyltransferase III and GlcNAc-T III) catalyzes the transfer of a N-acetylglucosamine residue to the β -linked mannose of the trimannosyl core of N-linked oligosaccharides, thereby inhibiting the extension of N-glycans by introducing a bisecting N-acetylglucosamine residue. Overexpression of GnT-III suppresses H₂O₂-induced activation of the PKC δ -JNK1 pathway, resulting in inhibition of apoptosis.

REFERENCES

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- Yang, X., Tang, J., Rogler, C.E. and Stanley, P. 2003. Reduced hepatocyte proliferation is the basis of retarded liver tumor progression and liver regeneration in mice lacking N-acetylglucosaminyltransferase III. *Cancer Res.* 63: 7753-7759.
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- Kang, S.K., Chung, T.W., Lee, J.Y., Lee, Y.C., Morton, R.E. and Kim, C.H. 2004. The hepatitis B virus X protein inhibits secretion of apolipoprotein B by enhancing the expression of N-acetylglucosaminyltransferase III. *J. Biol. Chem.* 279: 28106-28112.
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CHROMOSOMAL LOCATION

Genetic locus: MGAT3 (human) mapping to 22q13.1; Mgat3 (mouse) mapping to 15 E1.

SOURCE

GnT-III (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of GnT-III 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-27276 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

GnT-III (N-20) is recommended for detection of GnT-III of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

GnT-III (N-20) is also recommended for detection of GnT-III in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for GnT-III siRNA (h): sc-43808, GnT-III siRNA (m): sc-63308, GnT-III shRNA Plasmid (h): sc-43808-SH, GnT-III shRNA Plasmid (m): sc-63308-SH, GnT-III shRNA (h) Lentiviral Particles: sc-43808-V and GnT-III shRNA (m) Lentiviral Particles: sc-63308-V.

Molecular Weight of non-glycosylated GnT-III: 53 kDa.

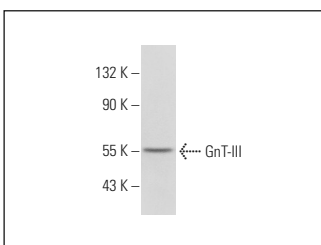
Molecular Weight of glycosylated GnT-III: 63 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211.

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



GnT-III (N-20): sc-27276. Western blot analysis of GnT-III expression in RAW 264.7 whole cell lysate.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.