



α 4Gn-T (Y-16): sc-102281

BACKGROUND

Alpha 1,4-N-acetylglucosaminyltransferase (α 4Gn-T) mediates the biosynthesis of mucin type glycoprotein (O-glycan). α 4Gn-T acts as the key enzyme for the formation of the unique glycan GlcNAc α 1-4Gal β 1-R, and most efficiently transfers N-acetylglucosamine (GlcNAc) to core 2 branched O-glycans. α 4Gn-T is a single-pass type II membrane protein associated with the Golgi apparatus and contains the conserved DXD motif involved in catalytic activity. It is expressed in stomach and pancreas, as well as in gastric cancer cells. α 4Gn-T is not expressed in peripheral blood cells, making it a useful biomarker for pancreatic cancer. α 4Gn-T and Mucin 6 expression is upregulated in the gastric mucosa of *H. pylori* infected patients, which suggest the involvement of α 4Gn-T in defense against *H. pylori* infection.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: A4GNT (human) mapping to 3q22.3; A4gnt (mouse) mapping to 9 E3.3.

SOURCE

α 4Gn-T (Y-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of α 4Gn-T 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-102281 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

α 4Gn-T (Y-16) is recommended for detection of α 4Gn-T 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).

Suitable for use as control antibody for α 4Gn-T siRNA (h): sc-78391, α 4Gn-T siRNA (m): sc-140647, α 4Gn-T shRNA Plasmid (h): sc-78391-SH, α 4Gn-T shRNA Plasmid (m): sc-140647-SH, α 4Gn-T shRNA (h) Lentiviral Particles: sc-78391-V and α 4Gn-T shRNA (m) Lentiviral Particles: sc-140647-V.

Molecular Weight of α 4Gn-T: 39 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

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.