

## GCNT3 (F-12): sc-160366



The Power to Question

## BACKGROUND

Belonging to the glycosyltransferase 14 family, GCNT3, also known as  $\beta$ 1,3-galactosyl-O-glycosyl-glycoprotein  $\beta$ -1,6-N-acetylglucosaminyltransferase 3 or core 2/core 4  $\beta$ 1,6-N-acetylglucosaminyltransferase (C2/4GnT), is a 438 amino acid glycosyltransferase that is localized to the Golgi apparatus. Other members of this family include GCNT1, GCNT2, GCNT4, GCNT6 and GCNT7. GCNT3 has been shown to play an important regulatory role in the synthesis of all known mucin  $\beta$ 6-N-acetylglucosaminides and in mediating core 2 and core 4 O-glycan branching, two important steps in mucin-type biosynthesis. Primarily expressed in mucus-secreting tissues, GCNT3 displays I-branching enzyme activity by converting linear into branched poly-N-acetylglucosaminoglycans, leading to the introduction of the blood group I antigen during embryonic development.

## REFERENCES

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4. Hagiwara, S., et al. 2005. Expression of core 2  $\beta$ 1,6-N-acetylglucosaminyltransferase facilitates prostate cancer progression. *Glycobiology* 15: 1016-1024.
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6. Tan, S. and Cheng, P.W. 2007. Mucin biosynthesis: identification of the *cis*-regulatory elements of human C2GnT-M gene. *Am. J. Respir. Cell Mol. Biol.* 36: 737-745.
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## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## CHROMOSOMAL LOCATION

Genetic locus: Gc3t3 (mouse) mapping to 9 D.

## SOURCE

GCNT3 (F-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of GCNT3 of mouse origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-160366 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

GCNT3 (F-12) is recommended for detection of GCNT3 of mouse and rat 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); non cross-reactive with other GCNT family members.

Suitable for use as control antibody for GCNT3 siRNA (m): sc-145365, GCNT3 shRNA Plasmid (m): sc-145365-SH and GCNT3 shRNA (m) Lentiviral Particles: sc-145365-V.

Molecular Weight of GCNT3: 51 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.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.