

# GalNAc-T10 (C-18): sc-68493

## BACKGROUND

The UDP-N-acetyl- $\alpha$ -D-galactosamine:polypeptide N-acetylgalactosaminyltransferase (GalNAc-T) family of enzymes are substrate-specific proteins that catalyze the transfer of GalNAc (N-acetylgalactosaminyl) to serine and threonine residues of various proteins, thereby initiating mucin-type O-linked glycosylation in the Golgi apparatus. GalNAc-T10 (polypeptide N-acetylgalactosaminyltransferase 10), also known as UDP-GalNAc:polypeptide N-acetylgalactosaminyltransferase 10, is a 603 amino acid single-pass type II membrane protein that prefers Muc5Ac and EA2 peptide substrates. The N-terminal domain is involved in substrate binding and manganese coordination, while the C-terminal domain is involved in UDP-Gal binding and catalytic reaction. GalNAc-T10 is widely expressed, with highest levels found in small intestine. There are four isoforms of GalNAc-T10 that are produced as a result of alternative splicing events.

## REFERENCES

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- Cheng, L., Tachibana, K., Zhang, Y., Guo, J., Kahori Tachibana, K., Kameyama, A., Wang, H., Hiruma, T., Iwasaki, H., Togayachi, A., Kudo, T. and Narimatsu, H. 2002. Characterization of a novel human UDP-GalNAc transferase, pp-GalNAc-T10. *FEBS Lett.* 531: 115-121.
- Ten Hagen, K.G., Fritz, T.A. and Tabak, L.A. 2003. All in the family: the UDP-GalNAc:polypeptide N-acetylgalactosaminyltransferases. *Glycobiology* 13: 1R-16R.
- Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 608043. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

## CHROMOSOMAL LOCATION

Genetic locus: GALNT10 (human) mapping to 5q33.2; Galnt10 (mouse) mapping to 11 B1.3.

## SOURCE

GalNAc-T10 (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of GalNAc-T10 of human 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-68493 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

GalNAc-T10 (C-18) is recommended for detection of GalNAc-T10 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

GalNAc-T10 (C-18) is also recommended for detection of GalNAc-T10 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for GalNAc-T10 siRNA (h): sc-75084, GalNAc-T10 siRNA (m): sc-75085, GalNAc-T10 shRNA Plasmid (h): sc-75084-SH, GalNAc-T10 shRNA Plasmid (m): sc-75085-SH, GalNAc-T10 shRNA (h) Lentiviral Particles: sc-75084-V and GalNAc-T10 shRNA (m) Lentiviral Particles: sc-75085-V.

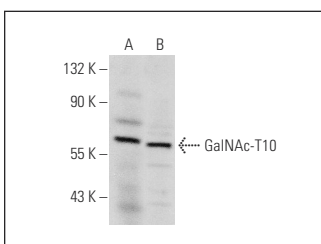
Molecular Weight of GalNAc-T10: 69 kDa.

Positive Controls: mouse liver extract: sc-2256 or U-251-MG whole cell lysate: sc-364176.

## 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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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<sup>™</sup> Mounting Medium: sc-24941.

## DATA



GalNAc-T10 (C-18): sc-68493. Western blot analysis of GalNAc-T10 expression in mouse liver tissue extract (A) and U-251-MG whole cell lysate (B).

## 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.