

# GalNAc-T7 (P-18): sc-68526

## 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-acetylgalactosamine) to serine and threonine residues onto various proteins, thereby initiating mucin-type O-linked glycosylation in the Golgi apparatus. In contrast to other proteins of the GalNAc-T family, GalNAc-T7 (N-acetylgalactosaminyltransferase 7) is a 657 amino acid protein that does not transfer GalNAc onto serine or threonine on the protein receptor, but instead requires the prior addition of a GalNAc before adding additional GalNAc molecules. Its 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-T7 is expressed in kidney, uterus, omentum, CNS, retina and stomach. Single nucleotide polymorphisms within the gene encoding GalNAc-T7 may be linked to susceptibility of schizophrenia.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: GALNT7 (human) mapping to 4q34.1; Galnt7 (mouse) mapping to 8 B2.

## STORAGE

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

## SOURCE

GalNAc-T7 (P-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of GalNAc-T7 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-68526 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

GalNAc-T7 (P-18) is recommended for detection of GalNAc-T7 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).

GalNAc-T7 (P-18) is also recommended for detection of GalNAc-T7 in additional species, including equine and canine.

Suitable for use as control antibody for GalNAc-T7 siRNA (h): sc-62364, GalNAc-T7 siRNA (m): sc-62365, GalNAc-T7 shRNA Plasmid (h): sc-62364-SH, GalNAc-T7 shRNA Plasmid (m): sc-62365-SH, GalNAc-T7 shRNA (h) Lentiviral Particles: sc-62364-V and GalNAc-T7 shRNA (m) Lentiviral Particles: sc-62365-V.

Molecular Weight of GalNAc-T7: 75 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 Blotting 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.