

GalNAc-T13 (N-19): sc-68505

BACKGROUND

The UDP-N-acetyl- α -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-T13 (polypeptide N-acetylgalactosaminyltransferase 13), also known as UDP-GalNAc:polypeptide N-acetylgalactosaminyltransferase 13, is a 556 amino acid protein that displays much stronger enzymatic activity than GalNAc-1 towards GalNAc transfer to mucin peptides such as Muc5a and Muc7. 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. With specific expression in the central nervous system, GalNAc-T13 may be responsible for the synthesis of Tn antigen in neuronal cells, which is a universal carcinoma marker on malignant cells.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: GALNT13 (human) mapping to 2q23.3; Galnt13 (mouse) mapping to 2 C1.1.

RESEARCH USE

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

SOURCE

GalNAc-T13 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of GalNAc-T13 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-68505 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GalNAc-T13 (N-19) is recommended for detection of GalNAc-T13 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-T13 (N-19) is also recommended for detection of GalNAc-T13 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for GalNAc-T13 siRNA (h): sc-75090, GalNAc-T13 siRNA (m): sc-75091, GalNAc-T13 shRNA Plasmid (h): sc-75090-SH, GalNAc-T13 shRNA Plasmid (m): sc-75091-SH, GalNAc-T13 shRNA (h) Lentiviral Particles: sc-75090-V and GalNAc-T13 shRNA (m) Lentiviral Particles: sc-75091-V.

Molecular Weight of GalNAc-T13: 64 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.

STORAGE

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

PROTOCOLS

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