



β-1,3-Gal-T6 (C-17): sc-103364

BACKGROUND

β-1,3-Gal-T6 (beta-1,3-galactosyltransferase 6), also known as galactosyltransferase II or GAG GalTII, is a 329 amino acid protein belonging to the glycosyltransferase 31 family. β-1,3-Gal-T6 is involved in several glycan metabolism pathways. With manganese as a cofactor, β-1,3-Gal-T6 catalyzes the transfer of galactose from UDP-galactose to substrates with a terminal β-linked galactose residue. β-1,3-Gal-T6 has a preference for galactose-β-1,4-xylose found in the linker region of chondroitin sulfate, heparan sulfate and other glycosaminoglycans, but does not have activity towards substrates with terminal galactosamine or glucosamine residues. Ubiquitously expressed, β-1,3-Gal-T6 is a single-pass type II membrane protein localized to the Golgi stack membrane.

REFERENCES

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3. Cole, S.E., Mao, M.S., Johnston, S.H. and Vogt, T.F. 2001. Identification, expression analysis, and mapping of β3GalT6, a putative galactosyl transferase gene with similarity to *Drosophila* brainiac. *Mamm. Genome* 12: 177-179.
4. Patel, R.Y. and Balaji, P.V. 2007. Fold-recognition and comparative modeling of human β3GalT I, II, IV, V and VI and β3GalNAcT I: prediction of residues conferring acceptor substrate specificity. *J. Mol. Graph. Model.* 26: 255-268.
5. Rivinoja, A., Hassinen, A., Kokkonen, N., Kauppila, A. and Kellokumpu, S. 2009. Elevated Golgi pH impairs terminal N-glycosylation by inducing mis-localization of Golgi glycosyltransferases. *J. Cell. Physiol.* 220: 144-154.

CHROMOSOMAL LOCATION

Genetic locus: B3GALT6 (human) mapping to 1p36.33; B3galt6 (mouse) mapping to 4 E2.

SOURCE

β-1,3-Gal-T6 (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of β-1,3-Gal-T6 of human origin.

PRODUCT

Each vial contains 200 μg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-103364 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

β-1,3-Gal-T6 (C-17) is recommended for detection of β-1,3-Gal-T6 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); non cross-reactive with other β-1,3-Gal-T family members.

Suitable for use as control antibody for β-1,3-Gal-T6 siRNA (h): sc-78716, β-1,3-Gal-T6 siRNA (m): sc-105002, β-1,3-Gal-T6 shRNA Plasmid (h): sc-78716-SH, β-1,3-Gal-T6 shRNA Plasmid (m): sc-105002-SH, β-1,3-Gal-T6 shRNA (h) Lentiviral Particles: sc-78716-V and β-1,3-Gal-T6 shRNA (m) Lentiviral Particles: sc-105002-V.

Molecular Weight of β-1,3-Gal-T6: 37 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.

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.