

β-1,4-Gal-T5 (C-17)-R: sc-22291-R

BACKGROUND

β-1,4-galactosyltransferases (β-1,4-Gal-T) are type II membrane-bound glycoproteins that are substrate-specific and function to transfer galactose in a β-1,4 linkage to an acceptor sugar. There are seven members of the β-1,4-Gal-T family, all of which are directed to the Golgi apparatus through a hydrophobic sequence at the N-terminus. β-1,4-Gal-T5 (β-1,4-galactosyltransferase 5) is a member of the β-1,4-Gal-T protein family and is localized to the *trans*-cisternae of the Golgi stack. Expressed throughout the body, β-1,4-Gal-T5 is responsible for the synthesis of both N-linked oligosaccharides and the various carbohydrates found in glycolipids. β-1,4-Gal-T5 is thought to preferentially galactosylate oligosaccharides that are upregulated in astrocytoma cells, suggesting a possible role in carcinogenesis.

REFERENCES

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RESEARCH USE

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

CHROMOSOMAL LOCATION

Genetic locus: B4GALT5 (human) mapping to 20q13.13; B4galt5 (mouse) mapping to 2 H3.

SOURCE

β-1,4-Gal-T5 (C-17)-R is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of β-1,4-Gal-T5 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-22291 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

β-1,4-Gal-T5 (C-17)-R is recommended for detection of β-1,4-Gal-T5 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).

β-1,4-Gal-T5 (C-17)-R is also recommended for detection of β-1,4-Gal-T5 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for β-1,4-Gal-T5 siRNA (h): sc-72405, β-1,4-Gal-T5 siRNA (m): sc-108225, β-1,4-Gal-T5 shRNA Plasmid (h): sc-72405-SH, β-1,4-Gal-T5 shRNA Plasmid (m): sc-108225-SH, β-1,4-Gal-T5 shRNA (h) Lentiviral Particles: sc-72405-V and β-1,4-Gal-T5 shRNA (m) Lentiviral Particles: sc-108225-V.

Molecular Weight of β-1,4-Gal-T5: 45 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Brejchová, J., Sýkora, J., Dlouhá, K., Roubalová, L., Ostašov, P., Vošahlíková, M., Hof, M. and Svoboda, P. 2011. Fluorescence spectroscopy studies of HEK293 cells expressing DOR-Gi1α fusion protein; the effect of cholesterol depletion. *Biochim. Biophys. Acta* 1808: 2819-2829.

STORAGE

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