

Ggta1 (D-14): sc-241472

BACKGROUND

Homologous glycosyltransferase (GT) gene families catalyze the formation of glycosidic linkages. The β -1,3 galactosyltransferase (β 3GalT) gene family encodes a set of type II transmembrane glycoproteins that are catalytically diverse and use different donor substrates (UDP-galactose and UDP-N-acetylglucosamine) and different acceptor sugars (N-acetylglucosamine, galactose, N-acetylgalactosamine) to catalyze the addition of an activated monosaccharide to a terminal lactose. The β -1,4-galactosyltransferase (β 4GalT) gene family shows exclusive specificity for the donor substrate UDP-galactose. In several tissues and cell lines, GTs localize to the Golgi complex. Ggta1 (N-acetyllactosaminide α -1,3-galactosyltransferase), also known as GALT or Gal, is a 394 amino acid single-pass type II membrane protein that belongs to the glycosyltransferase 6 family. Localizing to the Golgi apparatus, Ggta1 utilizes manganese as a cofactor and is involved in the transfer of galactose from UDP-galactose to acceptor molecules. Existing as three alternatively spliced isoforms, the gene encoding Ggta1 maps to mouse chromosome 2 B.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Ggta1 (mouse) mapping to 2 B.

SOURCE

Ggta1 (D-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Ggta1 of mouse 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-241472 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Ggta1 (D-14) is recommended for detection of Ggta1 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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).

Suitable for use as control antibody for Ggta1 siRNA (m): sc-145392, Ggta1 shRNA Plasmid (m): sc-145392-SH and Ggta1 shRNA (m) Lentiviral Particles: sc-145392-V.

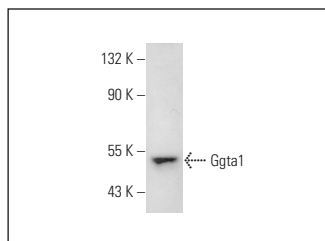
Molecular Weight of Ggta1 isoforms 1/2/3: 47/43/44 kDa.

Positive Controls: BC₃H1 cell lysate: sc-2299.

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) 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™ Mounting Medium: sc-24941.

DATA



Ggta1 (D-14): sc-241472. Western blot analysis of Ggta1 expression in BC₃H1 whole cell lysate.

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.