

ST6GAL2 (S-16): sc-324363

BACKGROUND

ST6GAL2 (ST6 β -galactosamide α -2,6-sialyltransferase 2), also known as SIAT2 (sialyltransferase 2) or ST6GalII, is a 529 amino acid single-pass type II membrane protein that belongs to the glycosyltransferase 29 family. Localizing to the Golgi stack membrane, ST6GAL2 is weakly expressed in some tissues, such as small intestine, colon and fetal brain. ST6GAL2 transfers sialic acid from the donor of substrate CMP-sialic acid to galactose-containing acceptor substrates, has α -2,6-sialyltransferase activity toward oligosaccharides that have the Gal- β -1,4-GlcNAc sequence at the non-reducing end of their carbohydrate groups, and has weak or no activities toward glycoproteins and glycolipids. The gene that encodes ST6GAL2 spans over 85 kb and maps to human chromosome 2q12.2. The 3' untranslated region of ST6GAL2 contains an Alu repetitive element, and the resulting protein exists as two alternatively spliced isoforms.

REFERENCES

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- Takashima, S., et al. 2002. Characterization of the second type of human β -galactoside α 2,6-sialyltransferase (ST6Gal II), which sialylates Gal β 1,4GlcNAc structures on oligosaccharides preferentially. *Genomic analysis of human sialyltransferase genes.* *J. Biol. Chem.* 277: 45719-45728.
- Krzewinski-Recchi, M.A., et al. 2003. Identification and functional expression of a second human β -galactoside α 2,6-sialyltransferase, ST6Gal II. *Eur. J. Biochem.* 270: 950-961.
- Online Mendelian Inheritance in Man, OMIM[™]. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 608472. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Rohfritsch, P.F., et al. 2006. Probing the substrate specificity of four different sialyltransferases using synthetic β -D-Galp-(1 \rightarrow 4)- β -D-GlcNAc-(1 \rightarrow 2)- α -D-Manp-(1 \rightarrow 0) (CH₂)₇CH₃ analogues general activating effect of replacing N-acetylglucosamine by N-propionylglucosamine. *Biochim. Biophys. Acta* 1760: 685-692.

CHROMOSOMAL LOCATION

Genetic locus: ST6GAL2 (human) mapping to 2q12.2; St6gal2 (mouse) mapping to 17 C.

SOURCE

ST6GAL2 (S-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ST6GAL2 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-324363 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ST6GAL2 (S-16) is recommended for detection of ST6GAL2 of mouse, rat and human 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).

ST6GAL2 (S-16) is also recommended for detection of ST6GAL2 in additional species, including equine.

Suitable for use as control antibody for ST6GAL2 siRNA (h): sc-105192, ST6GAL2 siRNA (m): sc-153864, ST6GAL2 shRNA Plasmid (h): sc-105192-SH, ST6GAL2 shRNA Plasmid (m): sc-153864-SH, ST6GAL2 shRNA (h) Lentiviral Particles: sc-105192-V and ST6GAL2 shRNA (m) Lentiviral Particles: sc-153864-V.

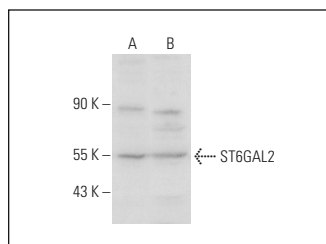
Molecular Weight of ST6GAL2 isoforms: 60/53 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

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



ST6GAL2 (S-16): sc-324363. Western blot analysis of ST6GAL2 expression in HeLa (A) and Jurkat (B) whole cell lysates.

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.