

# Sialyltransferase 7C (S-14): sc-68808

## BACKGROUND

Sialyltransferases transfer sialic acid to nascent oligosaccharides and are specific for a particular sugar substrate. Usually, sialyltransferases add sialic acid to the terminal portions of the sialylated glycolipids (gangliosides) or to the N- or O-linked sugar chains of glycoproteins. Sialyltransferase 7C (ST6GalNAc III, ST6GALNAC3) is a 305 amino acid member of the glycosyltransferase 29 family. Sialyltransferase 7C is involved in the biosynthesis of ganglioside GD1A from GM1B. Sialyltransferase 7C accomplishes this by transferring CMP-NeuAc with an  $\alpha$ -2,6-linkage to GalNAc residue on NeuAc- $\alpha$ -2,3-Gal- $\beta$ -1,3-GalNAc of glycoproteins and glycolipids. Sialyltransferase 7C has been determined to be more efficient at modifying glycolipids than glycoproteins. Sialyltransferase 7C is a single-pass type II membrane protein found on the membrane of the Golgi apparatus.

## REFERENCES

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3. Lin, T.W., et al. 2005. Stachybotrydial, a potent inhibitor of fucosyltransferase and sialyltransferase. *Biochem. Biophys. Res. Commun.* 331: 953-957.
4. Plath, C., et al. 2006. Assaying sialyltransferase activity with surface plasmon resonance. *Chembiochem.* 7: 1226-1230.
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## CHROMOSOMAL LOCATION

Genetic locus: ST6GALNAC3 (human) mapping to 1p31.1; St6galnac3 (mouse) mapping to 3 H3.

## SOURCE

Sialyltransferase 7C (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Sialyltransferase 7C of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-68808 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Sialyltransferase 7C (S-14) is recommended for detection of Sialyltransferase 7C 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).

Sialyltransferase 7C (S-14) is also recommended for detection of Sialyltransferase 7C in additional species, including canine, porcine and avian.

Suitable for use as control antibody for Sialyltransferase 7C siRNA (h): sc-63018, Sialyltransferase 7C siRNA (m): sc-63019, Sialyltransferase 7C shRNA Plasmid (h): sc-63018-SH, Sialyltransferase 7C shRNA Plasmid (m): sc-63019-SH, Sialyltransferase 7C shRNA (h) Lentiviral Particles: sc-63018-V and Sialyltransferase 7C shRNA (m) Lentiviral Particles: sc-63019-V.

Molecular Weight of Sialyltransferase 7C: 35 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](http://www.scbt.com) or our catalog for detailed protocols and support products.