

Sialyltransferase 7D (D-24): sc-133999

BACKGROUND

Sialyltransferase 7D, also known as ST6GALNAC4 (ST6 (α -N-acetyl-neuraminyl-2,3- β -galactosyl-1,3)-N-acetylgalactosaminide α -2,6-sialyltransferase 4), SIAT3C or SIAT7D, is a 302 amino acid single-pass type II membrane protein that localizes to the Golgi apparatus, but may also exist in a proteolytically processed soluble form. Expressed ubiquitously, Sialyltransferase 7D functions to catalyze the transfer of sialic acid from CMP-sialic acid to galactose-containing substrates in a substrate-specific manner, showing increased activity toward glycoproteins rather than glycolipids. Multiple isoforms of Sialyltransferase 7D exist due to alternative splicing events. The gene encoding Sialyltransferase 7D maps to human chromosome 9, which houses over 900 genes and comprises nearly 4% of the human genome.

REFERENCES

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- Okajima, T., et al. 1999. Molecular cloning of brain-specific GD1 α synthase (ST6GalNAc V) containing CAG/Glutamine repeats. *J. Biol. Chem.* 274: 30557-30562.
- Harduin-Lepers, A., et al. 2000. Cloning, expression and gene organization of a human Neu5Ac α 2-3Gal β 1-3GalNAc α 2,6-sialyltransferase: hST6GalNAcIV. *Biochem. J.* 352: 37-48.
- Kim, S.W., et al. 2003. Genomic structure and promoter analysis of human NeuAc α 2,3Gal β 1,3GalNAc α 2,6-sialyltransferase (hST6GalNAc IV) gene. *Gene* 305: 113-120.
- Kang, N.Y., et al. 2004. Regulatory elements involved in transcription of the human NeuAc α 2,3Gal β 1,3GalNAc α 2,6-sialyltransferase (hST6GalNAc IV) gene. *Mol. Cells* 18: 157-162.
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CHROMOSOMAL LOCATION

Genetic locus: ST6GALNAC4 (human) mapping to 9q34.11; St6galnac4 (mouse) mapping to 2 B.

SOURCE

Sialyltransferase 7D (D-24) is an affinity purified rabbit polyclonal antibody raised against synthetic Sialyltransferase 7D peptide of human origin.

PRODUCT

Each vial contains 50 μ g IgG in 500 μ l PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

Sialyltransferase 7D (D-24) is recommended for detection of Sialyltransferase 7D 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Sialyltransferase 7D siRNA (h): sc-63020, Sialyltransferase 7D siRNA (m): sc-63021, Sialyltransferase 7D shRNA Plasmid (h): sc-63020-SH, Sialyltransferase 7D shRNA Plasmid (m): sc-63021-SH, Sialyltransferase 7D shRNA (h) Lentiviral Particles: sc-63020-V and Sialyltransferase 7D shRNA (m) Lentiviral Particles: sc-63021-V.

Molecular Weight (predicted) of Sialyltransferase 7D: 35 kDa.

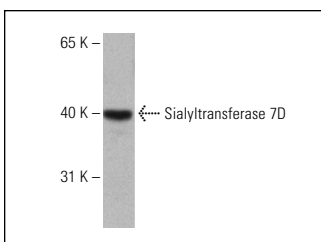
Molecular Weight (observed) of Sialyltransferase 7D: 40 kDa.

Positive Controls: Human brain whole cell lysate.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



Sialyltransferase 7D (D-24): sc-133999. Western blot analysis of Sialyltransferase 7D expression in human brain 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.