

ST8Sia V (N-17): sc-85171

BACKGROUND

Sialyltransferases are responsible for the transfer of sialic acid, a negatively charged acidic sugar, from its common nucleotide sugar donor to carbohydrate groups of glycoproteins and glycolipids where it then forms sialyl-glycoconjugates to influence a number of biological processes. Twenty mammalian sialyltransferase family members have been characterized to date. ST8Sia V, also known as ST8SIA5 (ST8 α-N-acetyl-neuraminate α-2,8-sialyltransferase 5), SIAT8E or ST8SIA5, is a 376 amino acid single-pass type II membrane protein of the Golgi apparatus that is suggested to participate in the synthesis of certain gangliosides. A member of the glycosyltransferase 29 family, ST8Sia V is involved in protein modification and glycosylation, and is expressed in skeletal muscle, heart and brain.

REFERENCES

1. Tsuji, S. 1996. Molecular cloning and functional analysis of sialyltransferases. *J. Biochem.* 120: 1-13.
2. Yoshikawa, T., Sanders, A.R., Esterling, L.E., Overhauser, J., Barnes, J.A., Lennon, G., Grewal, R. and Detera-Wadleigh, S.D. 1997. Isolation of chromosome 18-specific brain transcripts as positional candidates for bipolar disorder. *Am. J. Med. Genet.* 74: 140-149.
3. Kim, Y.J., Kim, K.S., Do, S., Kim, C.H., Kim, S.K. and Lee, Y.C. 1997. Molecular cloning and expression of human α2,8-sialyltransferase (hST8Sia V). *Biochem. Biophys. Res. Commun.* 235: 327-330.
4. Harduin-Lepers, A., Vallejo-Ruiz, V., Krzewinski-Recchi, M.A., Samyn-Petit, B., Julien, S. and Delannoy, P. 2001. The human sialyltransferase family. *Biochimie* 83: 727-737.
5. Takashima, S., Ishida, H.K., Inazu, T., Ando, T., Ishida, H., Kiso, M., Tsuji, S. and Tsujimoto, M. 2002. Molecular cloning and expression of a sixth type of α 2,8-sialyltransferase (ST8Sia VI) that sialylates O-glycans. *J. Biol. Chem.* 277: 24030-24038.
6. Online Mendelian Inheritance in Man, OMIM™. 2005. Johns Hopkins University, Baltimore, MD. MIM Number: 607162. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: ST8SIA5 (human) mapping to 18q21.1; St8sia5 (mouse) mapping to 18 E3.

SOURCE

ST8Sia V (N-17) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an N-terminal cytoplasmic domain of ST8Sia V of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-85171 P. (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ST8Sia V (N-17) is recommended for detection of ST8Sia V of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

ST8Sia V (N-17) is also recommended for detection of ST8Sia V in additional species, including bovine.

Suitable for use as control antibody for ST8Sia V siRNA (h): sc-76581, ST8Sia V siRNA (m): sc-153869, ST8Sia V shRNA Plasmid (h): sc-76581-SH, ST8Sia V shRNA Plasmid (m): sc-153869-SH, ST8Sia V shRNA (h) Lentiviral Particles: sc-76581-V and ST8Sia V shRNA (m) Lentiviral Particles: sc-153869-V.

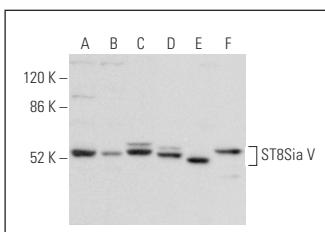
Molecular Weight of ST8Sia V: 44 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, A-673 cell lysate: sc-2414 or Sol8 cell lysate: sc-2249.

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). 3) 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.

DATA



ST8Sia V (N-17): sc-85171. Western blot analysis of ST8Sia V expression in Jurkat (**A**), HeLa (**B**), Sol8 (**C**), Neuro-2A (**D**), A-673 (**E**) and RAW 264.7 (**F**) 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.