

ST8Sia II (I-12): sc-104667

BACKGROUND

ST8Sia II (ST8 α -N-acetyl-neuraminide α -2,8-sialyltransferase II), also known as STX (sialyltransferase X) or SIAT8B, is a 375 amino acid single-pass type II membrane protein that localizes to the membrane of the Golgi apparatus. Expressed in adult heart and thymus, as well as in fetal kidney, brain and heart, ST8Sia II functions to catalyze the transfer of sialic acid to N-linked glycoproteins and oligosaccharides. More specifically, ST8Sia II uses CMP-sialic acid as a donor to transfer sialic acid, via α -2,8-linkages, to the α -2,6-linked and α -2,3-linked sialic acid residues of N-glycans. Additionally, ST8Sia II is thought to be involved in the expression of polysialic acid (PSA), an important regulator of neuronal plasticity. Defects in the gene encoding ST8Sia II may be associated with schizophrenia and tumorigenesis.

REFERENCES

1. Kojima, N., et al. 1996. Characterization of mouse ST8Sia II (STX) as a neural cell adhesion molecule-specific polysialic acid synthase. Requirement of core α -1,6-linked fucose and a poly-peptide chain for polysialylation. *J. Biol. Chem.* 271: 19457-19463.
2. Close, B.E. and Colley, K.J. 1998. *In vivo* autopolysialylation and localization of the polysialyltransferases PST and STX. *J. Biol. Chem.* 273: 34586-34593.
3. Angata, K., et al. 2000. Differential biosynthesis of polysialic acid on neural cell adhesion molecule (NCAM) and oligosaccharide acceptors by three distinct α -2,8-sialyltransferases, ST8Sia IV (PST), ST8Sia II (STX), and ST8Sia III. *J. Biol. Chem.* 275: 18594-18601.
4. Close, B.E., et al. 2001. The polysialyltransferase ST8Sia II/STX: posttranslational processing and role of autopolysialylation in the polysialylation of neural cell adhesion molecule. *Glycobiology* 11: 997-1008.

CHROMOSOMAL LOCATION

Genetic locus: ST8SIA2 (human) mapping to 15q26.1; St8sia2 (mouse) mapping to 7 D2.

SOURCE

ST8Sia II (I-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ST8Sia II 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-104667 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

ST8Sia II (I-12) is recommended for detection of ST8Sia II 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).

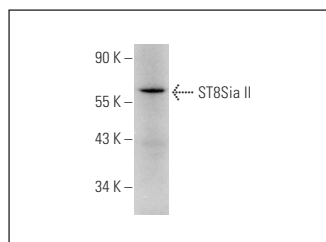
ST8Sia II (I-12) is also recommended for detection of ST8Sia II in additional species, including bovine, porcine and avian.

Suitable for use as control antibody for ST8Sia II siRNA (h): sc-89953, ST8Sia II siRNA (m): sc-106573, ST8Sia II shRNA Plasmid (h): sc-89953-SH, ST8Sia II shRNA Plasmid (m): sc-106573-SH, ST8Sia II shRNA (h) Lentiviral Particles: sc-89953-V and ST8Sia II shRNA (m) Lentiviral Particles: sc-106573-V.

Molecular Weight of ST8Sia II: 42 kDa.

Positive Controls: mouse heart extract: sc-2254.

DATA



ST8Sia II (I-12): sc-104667. Western blot analysis of ST8Sia II expression in mouse heart tissue extract.

SELECT PRODUCT CITATIONS

1. Chiappalupi, S., et al. 2014. Defective RAGE activity in embryonal rhabdomyosarcoma cells results in high PAX7 levels that sustain migration and invasiveness. *Carcinogenesis* 35: 2382-2392.

PROTOCOLS

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



Try **ST8Sia II (B-12): sc-390223** or **ST8Sia II (AS22): sc-130417**, our highly recommended monoclonal alternatives to ST8Sia II (I-12).