

# ST8Sia II (AS22): sc-130417

## BACKGROUND

ST8Sia II (ST8  $\alpha$ -N-acetyl-neuraminide  $\alpha$ -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  $\alpha$ -2,8-linkages, to the  $\alpha$ -2,6-linked and  $\alpha$ -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

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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  $\alpha$ -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.
5. Angata, K., et al. 2002. ST8Sia II and ST8Sia IV polysialyltransferases exhibit marked differences in utilizing various acceptors containing oligosialic acid and short polysialic acid. The basis for cooperative polysialylation by two enzymes. *J. Biol. Chem.* 277: 36808-36817.
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7. Beecken, W.D., et al. 2005. Valproic acid modulates NCAM polysialylation and polysialyltransferase mRNA expression in human tumor cells. *Int. Immunopharmacol.* 5: 757-769.

## CHROMOSOMAL LOCATION

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

## SOURCE

ST8Sia II (AS22) is a mouse monoclonal antibody raised against recombinant ST8Sia II of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG<sub>2a</sub> kappa light chain in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

ST8Sia II (AS22) is recommended for detection of ST8Sia II of mouse, rat and human origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

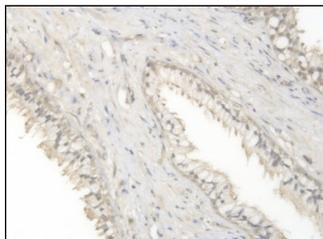
Suitable for use as control antibody for ST8Sia II siRNA (h): sc-89953, ST8Sia II siRNA (m): sc-106573, ST8Sia II shRNA Plasmid (h): sc-89953-SH, ST8Sia II shRNA Plasmid (m): sc-106573-SH, ST8Sia II shRNA (h) Lentiviral Particles: sc-89953-V and ST8Sia II shRNA (m) Lentiviral Particles: sc-106573-V.

Molecular Weight of ST8Sia II: 42 kDa.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:  
1) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## DATA



ST8Sia II (AS22): sc-130417. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human prostate tissue showing cytoplasmic localization.

## 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) for detailed protocols and support products.