SANTA CRUZ BIOTECHNOLOGY, INC.

ST8Sia VI (E-3): sc-514631

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 sialylglycoconjugates to influence a number of biological processes. 20 mammalian sialyltransferase family members have been characterized to date. ST8Sia VI (ST8 α-N-acetyl-neuraminide α-2,8-sialyltransferase 6), also known as α-2,8-sialyltransferase 8F variant 3, SIA8F or SIAT8F (sialyltransferase 8F), is a 398 amino acid Golgi apparatus single-pass type II membrane protein belonging to the glycosyltransferase 29 family that preferentially sialylates O-glycans over N-glycans or glycolipids. While ubiquitously expressed, ST8Sia VI is found at highest levels in kidney and is encoded by a gene mapping to human chromosome 10p12.33.

REFERENCES

1. Takashima, S., et al. 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.
2. Teintenier-Lelievre, M., et al. 2005. Molecular cloning and expression of a human hST8Sia VI (α2,8-sialyltransferase) responsible for the synthesis of the diSia motif on O-glycosylproteins. Biochem. J. 392: 665-674.
3. Harduin-Lepers, A., et al. 2005. The animal sialyltransferases and sialyltransferase-related genes: a phylogenetic approach. Glycobiology 15: 805-817.
4. Avril, T., et al. 2006. Probing the *cis* interactions of the inhibitory receptor Siglec-7 with α2,8-disialylated ligands on natural killer cells and other leukocytes using glycan-specific antibodies and by analysis of α2,8-sialyltransferase gene expression. J. Leukoc. Biol. 80: 787-796.
5. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 610139. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
6. Takashima, S. 2008. Characterization of mouse sialyltransferase genes: their evolution and diversity. Biosci. Biotechnol. Biochem. 72: 1155-1167.

CHROMOSOMAL LOCATION

Genetic locus: ST8SIA6 (human) mapping to 10p12.33; St8sia6 (mouse) mapping to 2 A1.

SOURCE

ST8Sia VI (E-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 165-187 within an internal region of ST8Sia VI of human origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-514631 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

ST8Sia VI (E-3) is recommended for detection of ST8Sia VI of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for ST8Sia VI siRNA (h): sc-90460, ST8Sia VI siRNA (m): sc-153870, ST8Sia VI shRNA Plasmid (h): sc-90460-SH, ST8Sia VI shRNA Plasmid (m): sc-153870-SH, ST8Sia VI shRNA (h) Lentiviral Particles: sc-90460-V and ST8Sia VI shRNA (m) Lentiviral Particles: sc-153870-V.

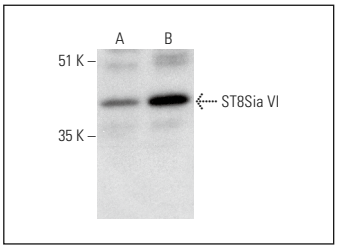
Molecular Weight of ST8Sia VI: 44 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, HL-60 whole cell lysate: sc-2209 or HT-1080 whole cell lysate: sc-364183.

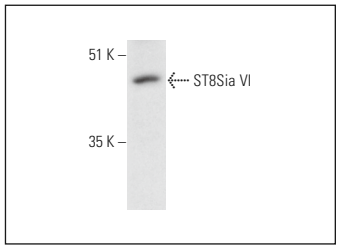
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



ST8Sia VI (E-3): sc-514631. Western blot analysis of ST8Sia VI expression in HL-60 (**A**) and HT-1080 (**B**) whole cell lysates.



ST8Sia VI (E-3): sc-514631. Western blot analysis of ST8Sia VI expression in Jurkat 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 for detailed protocols and support products.