

ST8Sia VI (F-13): sc-165604

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. Twenty 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. Teinturier-Lelievre, M., et al. 2005. Molecular cloning and expression of a human hST8Sia VI (α 2,8-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 α 2,8-disialylated ligands on natural killer cells and other leukocytes using glycan-specific antibodies and by analysis of α 2,8-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 (F-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ST8Sia VI 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-165604 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

ST8Sia VI (F-13) is recommended for detection of ST8Sia VI 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); non cross-reactive with other ST8Sia family members.

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.

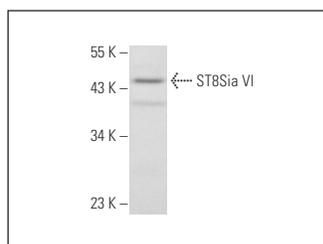
Molecular Weight of ST8Sia VI: 45 kDa.

POsitive Controls: Jurkat whole cell lysate: sc-2204.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

DATA



ST8Sia VI (F-13): sc-165604. 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.



Try **ST8Sia VI (E-3): sc-514631**, our highly recommended monoclonal alternative to ST8Sia VI (F-13).