GXYLT2 (D-13): sc-99422



The Power to Question

BACKGROUND

GXYLT2 (glucoside xylosyltransferase 2), also known as GLT8D4 (glycosyltransferase 8 domain-containing protein 4), is a 443 amino acid single-pass type II membrane protein belonging to the glycosyltransferase 8 family. A xylosyltransferase, GXYLT2 transfers xylose to the 0-glucose-modified residues of Notch 1's epidermal growth factor (EGF) repeats. The gene encoding GXYLT2 maps to human chromosome 3, which houses over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci. Key tumor suppressing genes on chromosome 3 include those that encode the apoptosis mediator RASSF1, the cell migration regulator HYAL1 and the angiogenesis suppressor SEMA3B. Marfan Syndrome, porphyria, von Hippel-Lindau syndrome, osteogenesis imperfecta and Charcot-Marie-Tooth Disease are a few of the numerous genetic diseases associated with chromosome 3.

REFERENCES

- De Jonghe, P., Timmerman, V., FitzPatrick, D., Spoelders, P., Martin, J.J. and Van Broeckhoven, C. 1997. Mutilating neuropathic ulcerations in a chromosome 3q13-q22 linked Charcot-Marie-Tooth disease type 2B family. J. Neurol. Neurosurg. Psychiatr. 62: 570-573.
- Maho, A., Bensimon, A., Vassart, G. and Parmentier, M. 1999. Mapping of the CCXCR1, CX3CR1, CCBP2 and CCR9 genes to the CCR cluster within the 3p21.3 region of the human genome. Cytogenet. Cell Genet. 87: 265-268.
- 3. Pfeifer, G.P. and Dammann, R. 2005. Methylation of the tumor suppressor gene RASSF1A in human tumors. Biochemistry Mosc. 70: 576-583.
- Nair, P.N., McArdle, L., Cornell, J., Cohn, S.L. and Stallings, R.L. 2007. High-resolution analysis of 3p deletion in neuroblastoma and differential methylation of the SEMA3B tumor suppressor gene. Cancer Genet. Cytogenet. 174: 100-110.
- Rasmussen, A., Alonso, E., Ochoa, A., De Biase, I., Familiar, I., Yescas, P., Sosa, A.L., Rodríguez, Y., Chávez, M., López-López, M. and Bidichandani, S.I. 2010. Uptake of genetic testing and long-term tumor surveillance in von Hippel-Lindau disease. BMC Med. Genet. 11: 4.
- Sethi, M.K., Buettner, F.F., Krylov, V.B., Takeuchi, H., Nifantiev, N.E., Haltiwanger, R.S., Gerardy-Schahn, R. and Bakker, H. 2010. Identification of glycosyltransferase 8 family members as xylosyltransferases acting on O-glucosylated notch epidermal growth factor repeats. J. Biol. Chem. 285: 1582-1586.
- 7. Online Mendelian Inheritance in Man, OMIM™. 2010. Johns Hopkins University, Baltimore, MD. MIM Number: 613322. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: GXYLT2 (human) mapping to 3p13; Gxylt2 (mouse) mapping to 6 D3.

SOURCE

GXYLT2 (D-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of GXYLT2 of human origin.

PRODUCT

Each vial contains 200 μg IgG in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-99422 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GXYLT2 (D-13) is recommended for detection of GXYLT2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 GLT family members.

Suitable for use as control antibody for GXYLT2 siRNA (h): sc-77937, GXYLT2 siRNA (m): sc-145439, GXYLT2 shRNA Plasmid (h): sc-77937-SH, GXYLT2 shRNA Plasmid (m): sc-145439-SH, GXYLT2 shRNA (h) Lentiviral Particles: sc-77937-V and GXYLT2 shRNA (m) Lentiviral Particles: sc-145439-V.

Molecular Weight of GXYLT2: 51 kDa.

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) 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.

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 or our catalog for detailed protocols and support products.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 Fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com