

GLT6D1 (N-14): sc-164490

BACKGROUND

GLT6D1 (glycosyltransferase 6 domain-containing protein 1), also known as GLTDC1 (galactosyltransferase family 6 domain-containing 1) or GT6M7, is a 308 amino acid single-pass type II membrane protein. A member of the glycosyltransferase 6 family, GLT6D1 is expressed in healthy and inflamed gingival tissue samples at similar levels, with higher expression in gingival connective tissue compared to gingival epithelium. GLT6D1 is also strongly expressed in testis and leukocytes. The GLT6D1 gene locus may contribute to a potential *trans*-acting regulatory mechanism involving chromatin-remodeling activity, leading to differential cytokine expression pattern in individuals affected with periodontitis. GLT6D1 is encoded by a gene that maps to human chromosome 9q34.3 and mouse chromosome 2 A3.

REFERENCES

1. Perrimon, N., et al. 2000. Specificities of heparan sulphate proteoglycans in developmental processes. *Nature* 404: 725-728.
2. Selleck, S.B. 2000. Proteoglycans and pattern formation: sugar biochemistry meets developmental genetics. *Trends Genet.* 16: 206-212.
3. Turcot-Dubois, A.L., et al. 2007. Long-term evolution of the CAZY glycosyltransferase 6 (ABO) gene family from fishes to mammals—a birth-and-death evolution model. *Glycobiology* 17: 516-528.
4. Casals, F., et al. 2009. Human pseudogenes of the ABO family show a complex evolutionary dynamics and loss of function. *Glycobiology* 19: 583-591.
5. Savage, A., et al. 2009. A systematic review of definitions of periodontitis and methods that have been used to identify this disease. *J. Clin. Periodontol.* 36: 458-467.
6. Schaefer, A.S., et al. 2010. A genome-wide association study identifies GLT6D1 as a susceptibility locus for periodontitis. *Hum. Mol. Genet.* 19: 553-562.
7. Online Mendelian Inheritance in Man, OMIM[™]. 2011. Johns Hopkins University, Baltimore, MD. MIM Number: 613699. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: GLT6D1 (human) mapping to 9q34.3; Glt6d1 (mouse) mapping to 2 A3.

SOURCE

GLT6D1 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of GLT6D1 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-164490 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GLT6D1 (N-14) is recommended for detection of GLT6D1 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).

Suitable for use as control antibody for GLT6D1 siRNA (h): sc-92914, GLT6D1 siRNA (m): sc-155899, GLT6D1 shRNA Plasmid (h): sc-92914-SH, GLT6D1 shRNA Plasmid (m): sc-155899-SH, GLT6D1 shRNA (h) Lentiviral Particles: sc-92914-V and GLT6D1 shRNA (m) Lentiviral Particles: sc-155899-V.

Molecular Weight of GLT6D1: 36 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.