

GLT8D3 (C-14): sc-138946

BACKGROUND

GLT8D3 (glycosyltransferase 8 domain-containing protein 3), also known as GXYLT1 (glucoside xylosyltransferase 1), is a 440 amino acid single-pass type II membrane protein. Belonging to the glycosyltransferase 8 family, GLT8D3 is a xylosyltransferase which elongates the O-linked glucose attached to EGF-like repeats in the extracellular domain of Notch proteins by catalyzing the addition of xylose. GLT8D3 contains a short N-terminal cytoplasmic domain, followed by a transmembrane domain, a stem region and a large glycosyltransferase domain containing the conserved DxX motif. GLT8D3 exists as two alternatively spliced isoforms and is encoded by a gene that maps to human chromosome 12q12 and mouse chromosome 15 E3.

REFERENCES

1. Stoolmiller, A.C., et al. 1972. Biosynthesis of the chondroitin sulfate proteoglycan. Purification and properties of xylosyltransferase. *J. Biol. Chem.* 247: 3525-3532.
2. Bakker, H., et al. 2009. Functional UDP-xylose transport across the endoplasmic reticulum/Golgi membrane in a Chinese hamster ovary cell mutant defective in UDP-xylose Synthase. *J. Biol. Chem.* 284: 2576-2583.
3. Chen, R., et al. 2009. Glycoproteomics analysis of human liver tissue by combination of multiple enzyme digestion and hydrazide chemistry. *J. Proteome Res.* 8: 651-661.
4. Jafar-Nejad, H., et al. 2010. Role of glycans and glycosyltransferases in the regulation of Notch signaling. *Glycobiology* 20: 931-949.
5. Sethi, M.K., et al. 2010. Identification of glycosyltransferase 8 family members as xylosyltransferases acting on O-glycosylated notch epidermal growth factor repeats. *J. Biol. Chem.* 285: 1582-1586.
6. Takeuchi, H., et al. 2010. Role of glycosylation of Notch in development. *Semin. Cell Dev. Biol.* 21: 638-645.
7. Online Mendelian Inheritance in Man, OMIM™. 2010. Johns Hopkins University, Baltimore, MD. MIM Number: 613321. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/613321>

CHROMOSOMAL LOCATION

Genetic locus: GXYLT1 (human) mapping to 12q12.

SOURCE

GLT8D3 (C-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of GLT8D3 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-138946 P, (100 µg 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

GLT8D3 (C-14) is recommended for detection of GLT8D3 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with GLT8D1, GLT8D2 or GLT8D4.

Suitable for use as control antibody for GLT8D3 siRNA (h): sc-95759, GLT8D3 shRNA Plasmid (h): sc-95759-SH and GLT8D3 shRNA (h) Lentiviral Particles: sc-95759-V.

Molecular Weight of GLT8D3 isoform 1: 51 kDa.

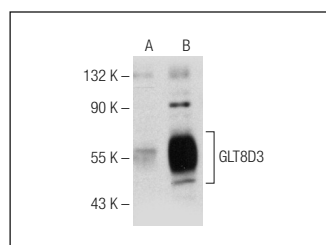
Molecular Weight of GLT8D3 isoform 2: 47 kDa.

Positive Controls: GLT8D3 (h): 293T Lysate: sc-113763.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



GLT8D3 (C-14): sc-138946. Western blot analysis of GLT8D3 expression in non-transfected: sc-117752 (A) and human GLT8D3 transfected: sc-113763 (B) 293T whole cell lysates.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.