

B3GNTL1 (V-15): sc-167172

BACKGROUND

B3GNTL1, also known as UDP-GlcNAc:βGal β-1,3-N-acetylglucosaminyltransferase-like protein 1, is a 361 amino acid protein that is widely expressed and belongs to the glycosyltransferase 2 family. B3GNTL1 is involved in transferase activity, specifically transferring glycosyl groups. Glycosyltransferases constitute a large group of enzymes that are involved in a wide range of functions in all living organisms. B3GNTL1 is highly expressed in adult pancreas, moderately in kidney, spleen, thymus, prostate, testis and ovary, and weakly in small intestine, colon, peripheral blood leukocyte and liver. The B3GNTL1 gene is conserved in chimpanzee, mouse, rat, chicken, zebrafish and *C. elegans*, and maps to human chromosome 17q25.3. Chromosome 17 makes up over 2.5% of the human genome with about 81 million bases encoding over 1,200 genes. Alexander disease, Birt-Hogg-Dube syndrome and Canavan disease are all associated with chromosome 17.

REFERENCES

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2. Zheng, H., et al. 2004. Characterization of a cDNA encoding a protein with limited similarity to β1, 3-N-acetylglucosaminyltransferase. *Mol. Biol. Rep.* 31: 171-175.
3. Ota, T., et al. 2004. Complete sequencing and characterization of 21,243 full-length human cDNAs. *Nat. Genet.* 36: 40-45.
4. Al-Dibbashi, O.Y., et al. 2007. Quantification of N-acetylaspartic acid in urine by LC-MS/MS for the diagnosis of Canavan disease. *J. Inher. Metab. Dis.* 30: 612.
5. Murakami, N., et al. 2008. Novel deletion mutation in GFAP gene in an infantile form of Alexander disease. *Pediatr. Neurol.* 38: 50-52.
6. Huttenhower, C., et al. 2009. Exploring the human genome with functional maps. *Genome Res.* 19: 1093-1106.
7. Davé, U.P., et al. 2009. Murine leukemias with retroviral insertions at Lmo2 are predictive of the leukemias induced in SCID-X1 patients following retroviral gene therapy. *PLoS Genet.* 5: e1000491.
8. SWISS-PROT/TrEMBL (Q67FW5). World Wide Web URL: <http://www.uniprot.org/uniprot/Q67FW5>

CHROMOSOMAL LOCATION

Genetic locus: B3GNTL1 (human) mapping to 17q25.3; B3gntl1 (mouse) mapping to 11 E2.

SOURCE

B3GNTL1 (V-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of B3GNTL1 of human origin.

STORAGE

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

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-167172 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

B3GNTL1 (V-15) is recommended for detection of B3GNTL1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

B3GNTL1 (V-15) is also recommended for detection of B3GNTL1 in additional species, including equine.

Suitable for use as control antibody for B3GNTL1 siRNA (h): sc-93799, B3GNTL1 siRNA (m): sc-141444, B3GNTL1 shRNA Plasmid (h): sc-93799-SH, B3GNTL1 shRNA Plasmid (m): sc-141444-SH, B3GNTL1 shRNA (h) Lentiviral Particles: sc-93799-V and B3GNTL1 shRNA (m) Lentiviral Particles: sc-141444-V.

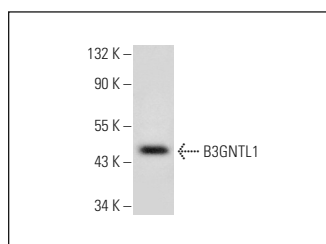
Molecular Weight of B3GNTL1: 41 kDa.

Positive Controls: MIA PaCa-2 cell lysate: sc-2285.

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



B3GNTL1 (V-15): sc-167172. Western blot analysis of B3GNTL1 expression in MIA PaCa-2 whole cell lysate.

RESEARCH USE

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