SANTA CRUZ BIOTECHNOLOGY, INC.

# β3Gn-TL1 (A-9): sc-514293

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

β3Gn-TL1, 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. β3Gn-TL1 is involved in transferase activity, specifically transferring glycosyl groups. Glycosyltransferases β3Gn-TL1 a large group of enzymes that are involved in a wide range of functions in all living organisms. β3Gn-TL1 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 β3Gn-TL1 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


1. Strausberg, R.L., et al. 2002. Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences. Proc. Natl. Acad. Sci. USA 99: 16899-16903.
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-Dirbashi, O.Y., et al. 2007. Quantification of N-acetylaspartic acid in urine by LC-MS/MS for the diagnosis of Canavan disease. J. Inherit. 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.


## CHROMOSOMAL LOCATION

Genetic locus: B3GNTL1 (human) mapping to 17q25.3.

## SOURCE

β3Gn-TL1 (A-9) is a mouse monoclonal antibody raised against amino acids 20-215 mapping within an internal region of β3Gn-TL1 of human origin.

## PRODUCT

Each vial contains 200 µg $IgG_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

β3Gn-TL1 (A-9) is available conjugated to agarose (sc-514293 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-514293 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514293 PE), fluorescein (sc-514293 FITC), Alexa Fluor® 488 (sc-514293 AF488), Alexa Fluor® 546 (sc-514293 AF546), Alexa Fluor® 594 (sc-514293 AF594) or Alexa Fluor® 647 (sc-514293 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514293 AF680) or Alexa Fluor® 790 (sc-514293 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.



## APPLICATIONS

β3Gn-TL1 (A-9) is recommended for detection of β3Gn-TL1 of human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for β3Gn-TL1 siRNA (h): sc-93799, β3Gn-TL1 shRNA Plasmid (h): sc-93799-SH and β3Gn-TL1 shRNA (h) Lentiviral Particles: sc-93799-V.

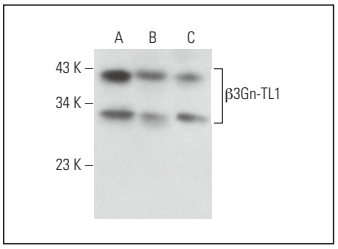
Molecular Weight of β3Gn-TL1: 41 kDa.

Positive Controls: RT-4 whole cell lysate: sc-364257, T24 cell lysate: sc-2292 or MIA PaCa-2 cell lysate: sc-2285.

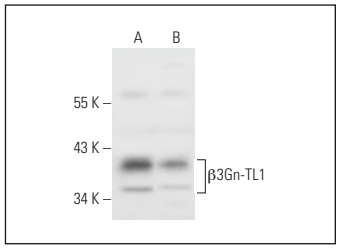
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA




β3Gn-TL1 (A-9): sc-514293. Western blot analysis of β3Gn-TL1 expression in RT-4 (**A**), T24 (**B**) and Hep G2 (**C**) whole cell lysates.




β3Gn-TL1 (A-9): sc-514293. Western blot analysis of β3Gn-TL1 expression in MIA PaCa-2 (**A**) and RT-4 (**B**) 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.

## RESEARCH USE

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

## PROTOCOLS

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