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Lieferung & Zahlungsart

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- Mindermengenzuschlag
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- Expressversand

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SANTA CRUZ BIOTECHNOLOGY, INC.

β-1,4-GalNAc-T2 (h): 293T Lysate: sc-373232

BACKGROUND

β-1,4-N-acetyl-galactosaminyl transferase 2 (β-1,4-GalNAc-T2) is a 566 amino acid protein belonging to the glycosyltransferase 2 family. Localized to the membrane of the Golgi apparatus, β-1,4-GalNAc-T2 participates in the synthesis of the Sd(a) antigen, a carbohydrate determinant expressed on erythrocytes, colonic mucosa and other tissues. During Sd(a) production, β-1,4-GalNAc-T2 transfers a β-1,4-linked GalNAc to the galactose residue of an α-2,3-sialylated chain. β-1,4-GalNAc-T2 also catalyzes the last step in the biosynthesis of the CAD antigen. β-1,4-GalNAc-T2 is widely expressed, with the highest expression in colon and lesser expression in kidney, stomach, ileum and rectum. Mutations in the gene encoding β-1,4-GalNAc-T2 have been linked to Type I von Willebrand disease (VWD), the most common bleeding disorder in humans, characterized by reduced levels of plasma von Willebrand factor. Two named isoforms of β-1,4-GalNAc-T2 exist as a result of alternative splicing events.

REFERENCES

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2. Dohi, T., et al. 1996. Detection of N-acetylgalactosaminyltransferase mRNA which determines expression of Sda blood group carbohydrate structure in human gastrointestinal mucosa and cancer. Int. J. Cancer 67: 626-631.
3. Mohlke, K.L., et al. 1996. A novel modifier gene for plasma von Willebrand factor level maps to distal mouse chromosome 11. Proc. Natl. Acad. Sci. USA 93: 15352-15357.
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5. Mohlke, K.L., et al. 1999. Mvwf, a dominant modifier of murine von Willebrand factor, results from altered lineage-specific expression of a glycosyltransferase. Cell 96: 111-120.
6. Montiel, M.D., et al. 2003. Molecular cloning, gene organization and expression of the human UDP-GalNAc:Neu5Acα2-3Galβ-R β1, 4-N-acetylgalactosaminyltransferase responsible for the biosynthesis of the blood group Sda/Cad antigen: evidence for an unusual extended cytoplasmic domain. Biochem. J. 373: 369-379.
7. Lo Presti, L., et al. 2003. Molecular cloning of the human β1, 4 N-acetylgalactosaminyltransferase responsible for the biosynthesis of the Sd(a) histo-blood group antigen: the sequence predicts a very long cytoplasmic domain. J. Biochem. 134: 675-682.
8. Sato, T., et al. 2003. Molecular cloning and characterization of a novel human β-1,4-N-acetylgalactosaminyltransferase, β-4GalNAc-T3, responsible for the synthesis of N,N′-diacetyllactosediamine, galNAc β-1-4GlcNAc. J. Biol. Chem. 278: 47534-47544.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

CHROMOSOMAL LOCATION

Genetic locus: B4GALNT2 (human) mapping to 17q21.32.

PRODUCT

β-1,4-GalNAc-T2 (h): 293T Lysate represents a lysate of human β-1,4-GalNAc-T2 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

β-1,4-GalNAc-T2 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive β-1,4-GalNAc-T2 antibodies. Recommended use: 10-20 µl per lane.

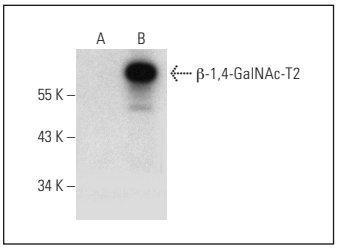
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

β-1,4-GalNAc-T2 (G-1): sc-393370 is recommended as a positive control antibody for Western Blot analysis of enhanced human β-1,4-GalNAc-T2 expression in β-1,4-GalNAc-T2 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



β-1,4-GalNAc-T2 (G-1): sc-393370. Western blot analysis of β-1,4-GalNAc-T2 expression in non-transfected: sc-117752 (**A**), human β-1,4-GalNAc-T2 transfected: sc-373232 (**B**) whole cell lysates.

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.