β3Gn-T7 (A-4): sc-271739

**BACKGROUND**

A family of human β 1,3-galactosyltransferases (β3Gn-Ts) consists of nine members (β3Gn-T1, -T2, -T3, -T4, -T5, -T6, -T7, -T8 and -T9). β3Gn-T1 catalyzes the formation of type 1 oligosaccharides. β3Gn-T2 converts lacto-N-tetraose II into lacto-N-tetraose and lacto-N-neotetraose and can form a hetero-dimer with β3Gn-T8, which, as a complex, exhibits higher enzymatic activity. Unlike the ubiquitously expressed β3Gn-T2, β3Gn-T3 is specifically expressed in colon, jejunum, stomach, esophagus, placenta and trachea, and β3Gn-T4 is mainly expressed in brain. β3Gn-T5 is essential for the biosynthesis of Lewis antigens and may play a role in gastric cancer as a result of its participation in chronic H. pylori infection. β3Gn-T6 may be a useful marker for distinguishing between benign adenomas and premalignant lesions. β3Gn-T7 acts as an anti-migration factor for a lung cancer cell line.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: B3GNT7 (human) mapping to 2q37.1; B3gnt7 (mouse) mapping to 1 D.

**SOURCE**

β3Gn-T7 (A-4) is a mouse monoclonal antibody raised against amino acids 27-115 mapping near the N-terminus of β3Gn-T7 of human origin.

**PRODUCT**

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

β3Gn-T7 (A-4) is available conjugated to agarose (sc-271739 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271739 HRP), 200 µg/ml, for WB, HICP and ELISA; to either phycoerythrin (sc-271739 PE), fluorescein (sc-271739 FITC), Alexa Fluor® 488 (sc-271739 AF488), Alexa Fluor® 546 (sc-271739 AF546), Alexa Fluor® 594 (sc-271739 AF594) or Alexa Fluor® 647 (sc-271739 AF647), 200 µg/ml, for WB (RGB), IF, HICP and FCM; and to either Alexa Fluor® 680 (sc-271739 AF680) or Alexa Fluor® 790 (sc-271739 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

β3Gn-T7 (A-4) is recommended for detection of β3Gn-T7 of mouse, rat and 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 1:50-1:1500), immunohistochemistry (including paraffin-embedded sections) (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-T7 siRNA (h): sc-94880, β3Gn-T7 siRNA (m): sc-108936, β3Gn-T7 shRNA Plasmid (h): sc-94880-SH, β3Gn-T7 shRNA Plasmid (m): sc-108936-SH, β3Gn-T7 shRNA (h) Lentiviral Particles: sc-94880-V and β3Gn-T7 shRNA (m) Lentiviral Particles: sc-108936-V.

Molecular Weight of β3Gn-T7: 46 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, Hep G2 cell lysate: sc-2227 or c4 whole cell lysate: sc-364186.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:


**DATA**

β3Gn-T7 (A-4): sc-271739. Western blot analysis of β3Gn-T7 expression in Hep G2 (A), Jurkat (B) and c4 (C) whole cell lysates and human heart tissue extract (D).

β3Gn-T7 (A-4): sc-271739. Immunoperoxidase staining of formalin fixed, paraffin-embedded human rectum tissue showing cytoplasmic staining of glandular cells.

**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.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA