Human ST6 Gal Sialyltransferase 1/ ST6GAL1 Antibody

Antigen Affinity-purified Polyclonal Goat IgG

Catalog Number: AF5924

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Gal Sialyltransferase 1/ST6GAL1 in direct ELISAs and Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Gal Sialyltransferase 1/ST6GAL1 Lys27-Cys406 Accession # P15907
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

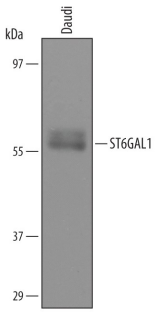
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Simple Western	10 µg/mL	See Below

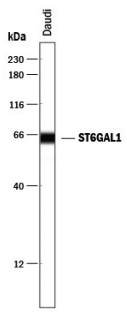
DATA

Western Blot



Detection of Human ST6GAL1 by Western Blot. Western blot shows lysates of Daudi human Burkitt's lymphoma cell line. PVDF Membrane was probed with 1 µg/mL of Goat Anti-Human ST6GAL1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5924) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for ST6GAL1 at approximately 56 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

Simple Western



Detection of Human ST6 Gal Sialyltransferase 1/ST6GAL1 by Simple Western™. Simple Western lane view shows lysates of Daudi human Burkitt's lymphoma cell line, loaded at 0.2 mg/mL. A specific band was detected for ST6 Gal Sialyltransferase 1/ST6GAL1 at approximately 64 kDa (as indicated) using 10 µg/mL of Goat Anti-Human ST6 Gal Sialyltransferase 1/ST6GAL1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5924) followed by 1:50 dilution of HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Sialic acid molecules attached to glycoproteins or glycosphingolipids play important roles in various biological processes such as immune recognition, pathogen infection, and cell adhesion (1). Sialyltransferases are key enzymes that regulate the cellular levels of sialic acid-containing molecules. Beta-galactosamide alpha-2,6-sialyltransferase 1 encoded by the ST6GAL1 gene is a type-II membrane protein localized in the trans-Golgi network and catalyzes 2,6-sialylation of Galβ1,4-GlcNAc structures on N-glycans (2). The enzyme is involved in the generation of the cell-surface carbohydrate determinants and differentiation antigens HB-6, CD75, and CD76 (3). ST6GAL1 is highly expressed in the liver and also expressed in most other tissues to some extent (4). ST6GAL1 deficiency causes abnormalities in B-cell immunoreactivity (5). The expression and activity of ST6GAL1 are associated with tumor metastasis in breast (6) and colon (7) cancers. The majority of ST6GAL1 in the liver is cleaved and secreted into the serum (8) and may be used as a biomarker for hepatitis diseases (9).

References:

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Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449