Human ST6GALNAC4 Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF6876

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human ST6GALNAC4 in direct ELISAs. In direct ELISAs, less than 1% cross-reactivity with recombinant human ST6GALNAC5 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human ST6GALNAC4 Thr36-Arg302 Accession # Q9H4F1
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

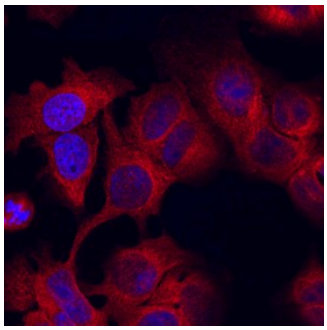
APPLICATIONS

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
Immunocytochemistry	5-15 µg/mL	See Below

DATA

Immunocytochemistry



ST6GALNAC4 in MCF-7 Human Cell Line. ST6GALNAC4 was detected in immersion fixed MCF-7 human breast cancer cell line using Sheep Anti-Human ST6GALNAC4 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6876) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (red; Catalog # NL010) and counterstained with DAPI (blue). View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
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

ST6GALNAC4 is a type II membrane protein that catalyzes the transfer of sialic acid from CMP-sialic acid to galactose-containing substrates (1). This enzyme works on both glycoproteins and glycolipids and has strict substrate specificity, utilizing only the trisaccharide sequence Neu5Acα2-3Galβ1-3GalNAc of glycoproteins and glycolipids (2). In particular, this enzyme is involved in the synthesis of ganglioside GD1A from GM1B (3). GD1A is the target pathogenic antigen in the autoimmune disease, Guillain-Barre Syndrome (4, 5). The activity of this enzyme has been measured using a phosphatase-coupled method (6).

References:

1. Harduin-Lepers, A. *et al.* (2005) Glycobiology **15**:805.
2. Harduin-Lepers, A. *et al.* (2000) Biochem. J. **352**:37.
3. Lee, Y. C. *et al.* (1999) J. Biol. Chem. **274**:11958.
4. Kusunoki, S. *et al.* (1994) Ann. Neurol. **35**:570.
5. Goodfellow, J.A. *et al.* (2005) J. Neurosci. **25**:1620.
6. Wu, Z.L. *et al.* (2011) Glycobiology **21**:727.