

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human GalNAc α -2,6-sialyltransferase V/ST6GALNAC5 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human (rh) ST6GALNAC4 or rhST6GALNAC6 is observed.
Source	Monoclonal Mouse IgG _{2A} Clone # 719508
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human SGalNAc α -2,6-sialyltransferase V/ST6GALNAC5 Gly30-Phe336 Accession # Q9BVH7
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.

Immunocytochemistry Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Gangliosides are acidic glycosphingolipids that contain one or more sialic acid residues (1). They are abundant in the nervous system, where they play crucial modulatory roles in cellular recognition, interaction, adhesion, and signal transduction, particularly during early developmental stages. The expression of gangliosides in the nervous system is developmentally regulated through various sialyltransferases (2). ST6GALNAC5 is a sialyltransferase involved in the biosynthesis of ganglioside GD1a (NeuAc α 2,3Gal β 1,3GalNAc β 1,4(NeuAc α 2,3)Gal β 1,4Glc β 1-Cer) from GM1b (NeuAc α 2,3Gal β 1,3GalNAc β 1,4Gal β 1,4Glc β 1-Cer), and its expression is restricted to the brain (3, 4). ST6GALNAC5 has been identified as a key player in the metastasis of breast cancer cells to the brain by potentially enabling the cancer cells to cross the blood-brain barrier (5, 6). The recombinant ST6GALNAC5 was active on fetuin from fetal calf serum when assayed using a phosphatase-coupled method (7) suggesting the substrate specificity of ST6GALNAC5 may require further characterization.

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