

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human α -2,8-Sialyltransferase 8B/ST8SIA2 in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human α -2,8-Sialyltransferase 8B/ST8SIA2 Asp24-Thr375 Accession # Q92186
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.

CyTOF-ready	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.
Intracellular Staining by Flow Cytometry	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

ST8SIA2, also known as sialyltransferase X, is mainly expressed during embryonic development (4) and shows strict preference on NCAM (6). Polysialic acid (PSA), abundant on the neural cell adhesion molecule (NCAM) during embryonic development, acts as an anti-adhesive glycan to negatively modulate the adhesive properties of NCAM (1). PSA expression decreases promptly after birth, and becomes restricted to the hippocampus, hypothalamus, and olfactory bulb, areas of the brain that require continuous cell migration and synaptic plasticity (2). Expression of PSA in cancer cells has been suggested to increase tumor invasiveness and to promote tumor growth (3). The temporal regulation of PSA is dependent on the expression of two polysialyltransferases, ST8SIA4 and ST8SIA2 (4, 5). The high degree of substrate specificity is achieved through specific enzyme-substrate recognition at both the protein sequence and glycan structure levels (6, 7). Like most glycosyltransferases, ST8SIA2 is a Golgi-resident type II membrane protein. The activity of this enzyme has been measured with a phosphatase-coupled method (8).

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