

$\alpha(2,6)$ -Sialyltransferase from *Photobacterium damsela*, Recombinant

Cat. No. NATE-0759

Lot. No. (See product label)

Introduction

Description Sialyltransferases are enzymes that transfer sialic acid to nascent oligosaccharide. Each sialyltransferase is specific for a particular sugar substrate. Sialyltransferases add sialic acid to the terminal portions of the sialylated glycolipids (gangliosides) or to the N-or O-linked sugar chains of glycoproteins. Sialyltransferases belong to glycosyltransferase family 29 (CAZY GT_29) which use a nucleotide monophosphosugar as the donor (CMP-NeuA) instead of a nucleotide diphosphosugar. Sialyltransferase transfers Neu5Ac from CMP-Neu5Ac to the galactosyl terminus of acceptor molecules including glycoproteins, glycolipids, and oligosaccharides.

Applications Highly active α 2-6 sialyltransferase has been used to prepare high levels of disialylated fragment crystals.

Synonyms $\alpha(2,6)$ -Sialyltransferase; Beta-galactoside alpha-2,6-sialyltransferase; Beta-galactosamide alpha-2,6-sialyltransferase; CMP-N-acetylneuraminate-beta-galactosamide-alpha-2,6-sialyltransferase; ST6Gal1; EC 2.4.99.1

Product Information

Species *Photobacterium damsela*

Source *E. coli* BL21

Form Supplied as a lyophilized powder containing Tris-HCl and NaCl.

EC Number EC 2.4.99.1

CAS No. 9075-81-4

Molecular Weight 56.8 kDa

Activity > 5 units/mg protein

Isoelectric point 4.88

Optimum pH 7.5-10.0

Unit Definition One unit will catalyze the formation of 1 μ mol Neu-5-Ac- α 2,6-LacMU from CMP-Neu-5-Ac and Lac- β -OMU per minute at 37°C at pH 8.0.

Usage and Packaging

Preparation Instructions Reconstitute the lyophilized powder with water to ~5 mg/mL. Solutions can be stored at 2-8°C for 1-2 months after reconstitution. They can also be aliquoted and frozen at -70°C or -20°C for 1 year. Multiple freeze-thaw cycles should be avoided.

Storage and Shipping Information

Stability Store the product at -20 °C. It remains active for at least 1 year when stored properly.

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