Creative Enzymes®

α(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 α2-6 sialyltransferase has been used to prepare high levels of disialylated fragment crystals.

Synonyms α(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 μmol 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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