Creative Enzymes®

α-2,3-Sialyltransferase from Pasteurella multocida, Recombinant

Cat. No. NATE-1171

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.

Synonyms α (2,3)-Sialyltransferase; Beta-galactoside alpha-2,3-sialyltransferase; Beta-galactosamide alpha-2,3-sialyltransferase; CMP-N-acetylneuraminate-beta-galactosamide-alpha-2,3-sialyltransferase

Product Information

Species Photobacterium damsela

Source E. coli BL21

Form Lyophilized powder containing Tris-HCl and NaCl.

EC Number EC 2.4.99.4

CAS No. 71124-51-1

Molecular Weight 46.4 kDa

Activity > 2 units/mg

Isoelectric point 5.94

Optimum pH 7.5–8.5

Unit Definition One unit will catalyze the formation of 1.0 mmole of Neu-5-Ac-a-2,3-Lac-MU from CMP-Neu-5-Ac and Lac-b-O-MU 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

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