

## **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

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