

## alpha-2,6-Sialyltransferase (Pd26ST)

Cat. No. ASGZ-0001

Lot. No. (See product label)

### Introduction

#### Description

alpha-2,6-Sialyltransferase (Pd26ST) transfers sialic acid to terminal or internal galactose and N-acetylgalactosamine residues, producing terminal  $\alpha$ 2,6-linked sialosides.

#### Applications

Enzymatic synthesis of  $\alpha$ 2,6-sialylated glycans and glycoconjugates; modification of galactose- or N-acetylgalactosamine-containing acceptors.

#### Synonyms

Pd26ST; alpha-2,6-Sialyltransferase; beta-Galactoside alpha-2,6-Sialyltransferase

### Product Information

#### Species

Pasteurella multocida (P-1059)

#### Source

Recombinant Escherichia coli expression

#### Appearance

Colorless to light yellow liquid

#### Form

Liquid

#### EC Number

2.4.99.1

#### CAS No.

9075-81-4

#### Molecular Weight

Approximately 54 kDa

#### Purity

>90% by SDS-PAGE

#### Activity

$\geq 5$  U/mL

#### Specificity

Accepts terminal and internal galactose and N-acetylgalactosamine residues and forms terminal  $\alpha$ 2,6-sialosides.

#### Stabilizers

10% glycerol

#### Buffer

20 mM Tris-HCl, pH 8.0

#### Function

Catalyzes formation of terminal  $\alpha$ 2,6-linked sialosides.

#### Substrates

Terminal or internal galactose and N-acetylgalactosamine-containing acceptors

#### Quality

Recombinant enzyme; purity >90% by SDS-PAGE; activity  $\geq 5$  U/mL

#### Unit Definition

One unit is defined as the amount of enzyme required per minute to convert 1  $\mu$ mol of Neu5Ac from UDP-Neu5Ac to lactose to form Neu5Ac- $\alpha$ 2,6-lactose at 37°C.

#### Reaction

Transfers sialic acid to galactose or N-acetylgalactosamine acceptor residues to generate terminal  $\alpha$ 2,6-linked sialosides.

#### Notes

The source page identifies the product as Pd26ST and lists Pasteurella multocida (P-1059) in the product title. Product identity and activity should be confirmed using the batch documentation.

#### Protocol

1. Add the substrate required for the reaction system. 2. Add MnCl<sub>2</sub> to a final

## **Protocol**

1. Add the substrate required for the reaction system. 2. Add  $MgCl_2$  to a final concentration of 5 mM. 3. Add a suitable buffer, such as Tris-HCl, and adjust the reaction to pH 8.5. 4. Add an appropriate amount of  $\alpha$ -2,6-Sialyltransferase. 5. Mix and incubate at 37°C for 2-4 hours. 6. For scale-up, adjust the incubation time or enzyme amount according to the reaction system; low-speed shaking may be used for mixing.

### **Usage**

Use as a recombinant glycosyltransferase for preparation of terminal  $\alpha$ 2,6-sialylated products. Select the enzyme amount according to substrate loading and the required conversion.

## **Usage and Packaging**

### **Preparation Instructions**

Add the required substrate, 5 mM  $MgCl_2$ , and an appropriate buffer such as Tris-HCl. Adjust the reaction mixture to pH 8.5, add the required amount of enzyme, mix, and incubate at 37°C for 2-4 hours.

## **Storage and Shipping Information**

### **Storage**

Store under the conditions specified in the batch Certificate of Analysis.