

## Sialic Acid Aldolase from Escherichia coli K12, Recombinant

Cat. No. NATE-0475

Lot. No. (See product label)

### Introduction

**Description** In enzymology, a N-acetylneuraminate lyase (EC 4.1.3.3) is an enzyme that catalyzes the chemical reaction: N-acetylneuraminate  $\rightleftharpoons$  N-acetyl-D-mannosamine + pyruvate. Hence, this enzyme has one substrate, N-acetylneuraminate, and two products, N-acetyl-D-mannosamine and pyruvate. This enzyme belongs to the family of lyases, specifically the oxo-acid-lyases, which cleave carbon-carbon bonds. This enzyme participates in aminosugars metabolism.

**Applications** Sialic acid aldolase can be used to synthesize unnatural sugars of C (6) to C (10) for the design of antagonists and inhibitors of glycoenzymes.

**Synonyms** EC 4.1.3.3; Sialic Acid Aldolase; N-Acetylneuraminate lyase; N-Acetylneuraminate pyruvate-lyase (N-acetyl-D-mannosamine-forming); N-acetylneuraminic acid aldolase; acetylneuraminate lyase; sialic aldolase; sialate lyase; N-acetylneuraminic aldolase; neuraminic aldolase; N-acetylneuraminate aldolase; neuraminic acid aldolase; N-acetylneuraminic acid aldolase; neuraminate aldolase; N-acetylneuraminic lyase; N-acetylneuraminic acid lyase; NPL; NALase; NANA lyase; acetylneuraminate pyruvate-lyase; N-acetylneuraminate pyruvate-lyase

### Product Information

**Species** Escherichia coli K12

**Source** E. coli BL21

**Form** Lyophilized powder containing Tris-HCl and NaCl

**EC Number** EC 4.1.3.3

**CAS No.** 9027-60-5

**Activity** > 3.0 units/mg protein

**Unit Definition** One unit will catalyze the formation of 1.0  $\mu$ mol Neu-5-Ac from Man-N-Ac and pyruvate per minute at 37°C at pH 8.0.

### Storage and Shipping Information

**Storage** -20°C