

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 \leftrightarrow 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 μ 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