

N-Acylmannosamine 1-Dehydrogenase from *Pseudomonas* sp., Recombinant

Cat. No. NATE-0470

Lot. No. (See product label)

Introduction

Description

In enzymology, a N-acylmannosamine 1-dehydrogenase (EC 1.1.1.233) is an enzyme that catalyzes the chemical reaction: N-acyl-D-mannosamine + NAD⁺ ↔ N-acyl-D-mannosaminolactone + NADH + H⁺. Thus, the two substrates of this enzyme are N-acyl-D-mannosamine and NAD⁺, whereas its 3 products are N-acyl-D-mannosaminolactone, NADH, and H⁺. This enzyme belongs to the family of oxidoreductases, specifically those acting on the CH-OH group of donor with NAD⁺ or NADP⁺ as acceptor.

Synonyms

N-acylmannosamine 1-dehydrogenase; EC 1.1.1.233; N-acylmannosamine dehydrogenase; N-acetyl-D-mannosamine dehydrogenase; N-acyl-D-mannosamine dehydrogenase; N-acylmannosamine dehydrogenase; 117698-08-5

Product Information

Species

Pseudomonas sp.

Source

E. coli

Form

lyophilized powder; Powder also contains bovine albumin and sucrose.

EC Number

EC 1.1.1.233

CAS No.

117698-08-5

Molecular Weight

mol wt ~120 kDa (gel filtration)

Activity

> 45 units/mg protein

Buffer

0.1 M Tris-HCl, pH 8.2; soluble 5 mg/mL

Unit Definition

One unit will oxidize 1.0 μmole of N-acetyl-D-mannosamine to N-acetyl-D-mannosaminolactone per minute at pH 8.2 at 37°C in the presence of NAD.

Storage and Shipping Information

Storage

–20°C