

Galactose dehydrogenase from recombinant E. coli

Cat. No. NATE-1931

Lot. No. (See product label)

Introduction

Description

In enzymology, a galactose 1-dehydrogenase (EC 1.1.1.48) is an enzyme that catalyzes the chemical reaction: D-galactose + NAD⁺ rightleftharpoons D-galactono-1,4-lactone + NADH + H⁺. Thus, the two substrates of this enzyme are D-galactose and NAD⁺, whereas its 3 products are D-galactono-1,4-lactone, 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. This enzyme participates in galactose metabolism.

Synonyms

D-galactose:NAD⁺ 1-oxidoreductase; D-galactose dehydrogenase; beta-galactose dehydrogenase; NAD⁺-dependent D-galactose dehydrogenase; galactose 1-dehydrogenase; EC 1.1.1.48; Galactose dehydrogenase

Product Information

Source

E. coli

Form

Ammonium sulphate suspension

EC Number

EC 1.1.1.48

CAS No.

9028-54-0

Molecular Weight

ca. 33,800

Activity

more than 80 U/mg protein

pH Stability

5.0 - 10.0

Optimum pH

10.5

Thermal stability

No significant decrease in activity up to 50 °C with Ammonium sulphate and 40 °C without Ammonium sulphate.

Unit Definition

One unit of activity is defined as the amount of GalDH that forms 1 µmol of NADH per minute at 30 °C.

Storage and Shipping Information

Storage

Store at 4 to 10 °C (Do not freeze)

Stability

Stable at 4 °C for at least one year