Creative Enzymes®

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