

## Prokaryotic Galactose dehydrogenase, Recombinant

Cat. No. NATE-0840

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<sup>+</sup> rightleftharpoons D-galactono-1,4-lactone + NADH + H<sup>+</sup>. Thus, the two substrates of this enzyme are D-galactose and NAD<sup>+</sup>, whereas its 3 products are D-galactono-1,4-lactone, NADH, and H<sup>+</sup>. This enzyme belongs to the family of oxidoreductases, specifically those acting on the CH-OH group of donor with NAD<sup>+</sup> or NADP<sup>+</sup> as acceptor. This enzyme participates in galactose metabolism.

#### Synonyms

D-galactose:NAD<sup>+</sup> 1-oxidoreductase; D-galactose dehydrogenase; beta-galactose dehydrogenase; NAD<sup>+</sup>-dependent D-galactose dehydrogenase; galactose 1-dehydrogenase; EC 1.1.1.48; Galactose dehydrogenase

### Product Information

#### Source

Microorganism

#### Form

Liquid

#### EC Number

EC 1.1.1.48

#### CAS No.

9028-54-0

#### Molecular Weight

~ 36.6kD

#### Activity

~ 275 U/mg protein

#### Unit Definition

One unit is defined as the amount of enzyme required to convert one  $\mu$ mole of D-galactose to D-galactanate per minute in the presence of NAD<sup>+</sup> in Tris-HCl buffer at pH 8.6 and 25°C.

### Storage and Shipping Information

#### Storage

4°C