

Glucose Dehydrogenase, Recombinant

Cat. No. NATE-1139

Lot. No. (See product label)

Introduction

Description

In enzymology, a glucose 1-dehydrogenase (EC 1.1.1.47) is an enzyme that catalyzes the chemical reaction: $\beta\text{-D-glucose} + \text{NAD (P)}^+ \rightleftharpoons \text{D-glucono-1,5-lactone} + \text{NAD (P)H} + \text{H}^+$. The 3 substrates of this enzyme are $\beta\text{-D-glucose}$, NAD^+ , and NADP^+ , whereas its 4 products are D-glucono-1,5-lactone, NADH, NADPH, 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.

Applications

GDH can be used as the raw material enzyme in clinic diagnostic of blood glucose.

Synonyms

EC 1.1.1.47; D-glucose dehydrogenase (NAD (P)⁺); hexose phosphate dehydrogenase; $\beta\text{-D-glucose:NAD (P)}^+$ 1-oxidoreductase; glucose 1-dehydrogenase; Glucose dehydrogenase; 9028-53-9

Product Information

Appearance

White powder, lyophilized

EC Number

EC 1.1.1.47

CAS No.

9028-53-9

Molecular Weight

About 28kDa (SDS-PAGE detection)

Purity

90% (SDS-PAGE test)

Activity

About 200U/mg

Buffer

50mM phosphate buffer, pH7.0

Unit Definition

1 unit will catalyze 1 μmol $\beta\text{-D-glucose}$ oxidizing into D-glucose- δ -lactone per minute at pH 8.0, 37 °C.

Storage and Shipping Information

Storage

4°C, store at -20°C for long-term preservation.