

Native Pseudomonas sp. Glucose dehydrogenase

Cat. No. NATE-0305

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: $\beta\text{-D-glucose} + \text{NAD (P)}^+ \leftrightarrow \text{D-glucono-1,5-lactone} + \text{NAD (P)H} + \text{H}^+$. 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.

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

Source Pseudomonas sp.

Form powder; white

EC Number EC 1.1.1.47

CAS No. 9028-53-9

Activity > 200 units/mg

Unit Definition One unit corresponds to the amount of enzyme which will oxidizes 1 μmole $\beta\text{-D-glucose}$ to D-glucono- δ -lactone per minute at pH 8.0 and 37°C

Storage and Shipping Information

Storage -20°C