Creative Enzymes®

Glycerol-3-Phosphate Dehydrogenase from E. coli, Recombinant

Cat. No. NATE-1904

Lot. No. (See product label)

Introduction

Description	α-glycerophosphate dehydrogenase catalyzes the conversion of dihydroxyacetone to glycerol phosphate.
Applications	The enzyme is useful for enzymatic determination of glycerol and triglyceride when coupled with glycerokinase.
Synonyms	α-glycerol phosphate dehydrogenase (NAD); α-glycerophosphate dehydrogenase (NAD); glycerol 1-phosphate dehydrogenase; glycerol phosphate dehydrogenase (NAD); glycerophosphate dehydrogenase (NAD); hydroglycerophosphate dehydrogenase; L-α-glycerol phosphate dehydrogenase; L-α-glycerophosphate dehydrogenase; L-glycerol phosphate dehydrogenase; L-glycerophosphate dehydrogenase; NAD-α-glycerophosphate dehydrogenase; NAD-dependent glycerol phosphate dehydrogenase; NAD-dependent glycerol-3-phosphate dehydrogenase; NAD-L-glycerol-3-phosphate dehydrogenase; NAD-linked glycerol 3-phosphate dehydrogenase; NADH-dihydroxyacetone phosphate reductase; glycerol-3-phosphate dehydrogenase (NAD); EC 1.1.1.8; 9075-65-4; α-GDH

Product Information

Source	E. coli
Appearance	Lyophilized
EC Number	EC 1.1.1.8
CAS No.	9075-65-4
Molecular Weight	ca. 73,600; Subunit molecular weight : ca. 36,800.
Specific Activity	more than 7 U/mg protein
pH Stability	6.5 - 10.0
Optimum pH	9
Thermal stability	No detectable decrease in activity up to 80 °C.
Michaelis Constant	(90 mM Bicine buffer pH 9.0, at 37 °C) Glycerol-3-phosphate: 0.119 mM; NAD+: 0.036 mM.
Unit Definition	One unit of activity is defined as the amount of G3PDH that forms 1 μmol of NADH per minute at 37 °C.
Reaction	Glycerol-3-phosphate + NAD+ ←→ Dihydroxyacetone 3-phosphate + NADH+ H+

Storage and Shipping Information

Storage	Stable at -20 °C for at least one year.