Creative Enzymes®

Native Cellulomonas sp. Glycerol Dehydrogenase

Cat. No. NATE-0283

Lot. No. (See product label)

Introduction

Description	Glycerol dehydrogenase is an enzyme in the oxidoreductase family that utilizes the NAD+ to catalyze the oxidation of glycerol to form glycerone (dihydroxyacetone).
Applications	This enzyme is useful for enzymatic determination of glycerol and of triglyceride when coupled with lipoprotein lipase in clinical analysis. Formation of NADH from the reaction of glycerol and NAD+ was catalyzed by the enzyme glycerol dehydrogenase.
Synonyms	EC 1.1.1.6; NAD+-linked glycerol dehydrogenase; glycerol:NAD+ 2-oxidoreductase; GDH; GlDH; GlyDH; 9028-14-2; glycerin dehydrogenase

Product Information

Source	Cellulomonas sp.
Form	Lyophilized powder containing bovine serum albumin
EC Number	EC 1.1.1.6
CAS No.	9028-14-2
Molecular Weight	mol wt ~390 kDa
Activity	50-125 units/mg protein
Isoelectric point	4.4 ± 0.1
pH Stability	pH 7.5 – 10.5 (25°C, 20hr)
Optimum pH	10.0 – 10.5
Thermal stability	below 55°C (pH 7.5, 15min)
Optimum temperature	50°C
Michaelis Constant	1.1 x 10^{-2}M (Glycerol), 8.9 x 10^{-5}M (NAD+)
Structure	10 subunits (42 kDa) per mol of enzyme
Inhibitors	p-Chloromercuribenzoate, o-phenanthroline, monoiodoacetate, heavy metal ions (Co++, Ni++, Cu++, Zn++, Cd++)
Unit Definition	One unit will oxidize 1.0 µmole of glycerol to dihydroxyacetone per min at 25°C at pH 10.0.

Storage and Shipping Information

Storage	−20°C