

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; GIDH; 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 10⁻²M (Glycerol), 8.9 x 10⁻⁵M (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

