

## 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<sup>+</sup> 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<sup>+</sup> was catalyzed by the enzyme glycerol dehydrogenase.

**Synonyms** EC 1.1.1.6; NAD<sup>+</sup>-linked glycerol dehydrogenase; glycerol:NAD<sup>+</sup> 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<sup>-2</sup>M (Glycerol), 8.9 x 10<sup>-5</sup>M (NAD<sup>+</sup>)

**Structure** 10 subunits (42 kDa) per mol of enzyme

**Inhibitors** p-Chloromercuribenzoate, o-phenanthroline, monoiodoacetate, heavy metal ions (Co<sup>++</sup>, Ni<sup>++</sup>, Cu<sup>++</sup>, Zn<sup>++</sup>, Cd<sup>++</sup>)

**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

