

Glycerol dehydrogenase from Cellulomonas sp

Product Code: 182640

EC: 1.1.1.6

SKU: 182640

Category: [Enzymes](#)

PRODUCT DESCRIPTION

SPECIFICATIONS

EC 1.1.1.6

Product name Glycerol:NAD⁺ 2-oxidoreductase

Appearance White amorphous powder, lyophilized

Activity Grade III, 50 U/mg-solid or more (containing 50% of stabilizers)

Contaminants NADH oxidase : $\leq 1.0 \times 10^{-3}$ %

Stabilizers BSA

Stability Stable at $\pm 20^{\circ}\text{C}$ for at least 12 month

Molecular weight approx. 390,000

Isoelectric point 4.4 ± 0.1

Michaelis constants $1.1 \times 10^{-2} \text{M}$ (Glycerol), $8.9 \times 10^{-5} \text{M}$ (NAD^+)

Structure 10 subunits (42,000) per mol of enzyme

Inhibitors p-Chloromercuribenzoate, o-phenanthroline, monoiodoacetate, heavy metal ions (Co^{2+} , Ni^{2+} , Cu^{2+} , Zn^{2+} , Cd^{2+})

Optimum pH 10.0–10.5

Optimum temperature 50°C

pH Stability pH 7.5–10.5 (25°C , 20hr)

Thermal stability below 55°C (pH 7.5, 15min)

Substrate specificity This enzyme has the highest specificity for glycerol and 1,2-propanediol, and also oxidizes glycerol- α -monochlorohydrin, ethylene glycol and 2,3-butanediol. The oxidative reaction is stimulated by K^+ , NH_4^+ and Rb^+ .