

D-3-Hydroxybutyrate dehydrogenase from Pseudomonas sp

Product Code: 182642

EC: 1.1.1.30

SKU: 182642

Category: [Enzymes](#)

PRODUCT DESCRIPTION

SPECIFICATIONS

EC 1.1.1.30

Product name (R)-3-hydroxybutanoate: NAD⁺ oxidoreductase

Appearance white amorphous powder lyophilized

Activity Grade III, 100 U/mg-solid or more

Contaminants NADH oxidase $\leq 2.0 \times 10^{-3}\%$

Malate dehydrogenase $\leq 2.0 \times 10^{-3}\%$

Lactate dehydrogenase $\leq 2.0 \times 10^{-3}\%$

Stabilizers Sucrose, mannitol, BSA

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

Molecular weight approx. 130,000 (by gel filtration)

Isoelectric point 5.6 ± 0.1

Michaelis constants $4.2 \times 10^{-4} \text{M}$ (25°C, pH8.3), $7.0 \times 10^{-4} \text{M}$ (37°C, pH8.3) (D-3-Hydroxybutyrate)
 $4.9 \times 10^{-5} \text{M}$ (25°C, pH8.3), $7.2 \times 10^{-5} \text{M}$ (37°C, pH8.3) (NAD⁺) $8.1 \times 10^{-5} \text{M}$ (25°C, pH7.1), $2.4 \times 10^{-4} \text{M}$ (37°C, pH7.1) (Acetoacetate) $8.4 \times 10^{-6} \text{M}$ (25°C, pH7.1), $1.5 \times 10^{-5} \text{M}$ (37°C, pH7.1) (NADH)

Inhibitors PCMB, MIA, IAA, Ag⁺, Hg²⁺, SDS, DAC

Optimum pH 8.3

Optimum temperature 55°C

pH Stability pH 5.0–8.5 (25°C, 20hr)

Thermal stability below 40°C (pH 6.5, 15min)