

## **D-3-Hydroxybutyrate dehydrogenase from Pseudomonas sp**

**Product Code:** 182642

**EC:** 1.1.1.30

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**SKU:** 182642

**Category:** [Enzymes](#)

### **PRODUCT DESCRIPTION**

### **SPECIFICATIONS**

**EC 1.1.1.30**

Product name (R)-3-hydroxybutanoate: NAD<sup>+</sup> 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  $5.6 \pm 0.1$

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<sup>+</sup>)  $8.1 \times 10^{-5} \text{M}$  (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<sup>+</sup>, Hg<sup>2+</sup>, 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)