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Product Data Sheet

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□ Cat # RP-376

Recombinant Isocitrate Dehydrogenase

Size: □ 1 mg

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**Source:** Yeast Isocitrate Dehydrogenase is an enzyme of the oxidoreductase class that catalyzes the conversion of isocitrate and NAD<sup>+</sup> to yield 2-ketoglutarate, carbon dioxide, and NADH. It occurs in cell mitochondria. The enzyme requires Mg<sup>2+</sup>, Mn<sup>2+</sup>; it is activated by ADP, citrate, and Ca<sup>2+</sup>, and inhibited by NADH, NADPH, and ATP. The reaction is the key rate-limiting step of the citric acid (tricarboxylic) cycle. The ICDH is purified by proprietary chromatographic techniques. One ml of solution (1mg/84µl) contains 0.075 mol/l KPO<sub>4</sub>, 50% Glycerol, pH 7.1.

**Applications and Suggested Dilutions:** Greater than 95.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

**Storage and Stability:** ICDH although stable at 15°C for 1 week should be stored between 2°C-8°C. For long term storage it is recommended to add a carrier protein (0.1% HAS or BSA) **Please avoid freeze-thaw cycles.**

**Biological Activity:** The specific activity was found to be 30 IU/mg.

**Unit Definition:** One unit is defined as 1 µmol of NAD<sup>+</sup> production per minute under the assay conditions (25°C, pH 7.5).

**Usage:** This item is for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

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