

Recombinant Isocitrate Dehydrogenase (NADP⁺) (riCDH)

ACLENZ289B

Description: Isocitrate Dehydrogenase is an enzyme of the oxidoreductase class that catalyzes the conversion of isocitrate and NAD⁺ to yield 2-ketoglutarate, carbon dioxide, and NADH. It occurs in cell mitochondria. The enzyme requires Mg²⁺, Mn²⁺; it is activated by ADP, citrate, and Ca²⁺, and inhibited by NADH, NADPH, and ATP. The reaction is the key rate-limiting step of the citric acid (tricarboxylic) cycle.

Presentation: 5 mg (CLENZ289-2) recombinant isocitrate dehydrogenase is supplied in a sterile filtered clear solution. One ml of solution (1 mg/90 ul) contains 0.075 mol/L KPO₄, 50% glycerol, pH 7.1. Recombinant MDH is purified by proprietary chromatographic techniques.

Source: Yeast.

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

Purity: Greater than 95% as determined by: (a) Analysis by RP-HPLC (b) Anion-exchange FPLC (c) Analysis by reducing and non-reducing SDS-PAGE silver stained gel.

Dimers and aggregates: Less than 1% as determined by silver stained SDS-PAGE gel analysis

Endotoxin: Less than 0.1 ng/ug (IEU/ug) of riCDH.

Biological Activity: riCDH is fully biologically active when compared to standard. The specific activity was found to be 30 IU/mg.

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

Laboratory Reagent For Research Use Only.