

## 32-2461: IDH1 Recombinant Protein

**Alternative Name** : Isocitrate dehydrogenase [NADP] cytoplasmic, EC 1.1.1.42, Cytosolic NADP-isocitrate dehydrogenase, Oxalosuccinate decarboxylase, IDH, NADP(+)-specific ICDH, IDP, PICD.

### Description

Source : Yeast cells. Recombinant *Saccharomyces Cerevisiae* ICDH (NADP) derived from yeast host cells by using over-expression system, is full length same as designated ICD1 from *Saccharomyces Cerevisiae*. The N-terminal amino acid Phenylalanine residue next to Met is substituted with Alanine for overexpression. The ICDH is purified by proprietary chromatographic techniques. 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.

### Product Info

**Amount :** 5 mg  
**Purification :** Greater than 95.0% as determined by:(a) Analysis by RP-HPLC.(b) Analysis by SDS-PAGE.  
**Content :** One ml of solution contains 0.075 mol/l KPO<sub>4</sub>, 50% Glycerol, pH 7.1.  
**Storage condition :** Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

### Application Note

The specific activity was found to be 115 U/mg.

