



## ISOCITRATE DEHYDROGENASE from *B. subtilis* (Lot 101101b)

### Recombinant

#### E-ICDHBS

03/19

(EC 1.1.1.42) isocitrate:NADP<sup>+</sup> oxidoreductase (decarboxylating)

### PROPERTIES

#### 1. ELECTROPHORETIC PURITY:

- Single band on SDS-gel electrophoresis (MW ~ 48,581)
- Single major band on isoelectric focusing (pI ~ 5.4)

#### 2. SPECIFIC ACTIVITY:

**12.9 U/mg protein at pH 7.6 and 25°C.**

**One Unit** of isocitrate dehydrogenase is defined as the amount of enzyme required to produce one  $\mu$ mole of NADPH from NADP<sup>+</sup> under the following assay conditions:

Tris.HCl buffer, pH 7.6	143 mM
MgCl <sub>2</sub>	7.1 mM
NADP <sup>+</sup>	0.70 mM
D-/L-Isocitric acid	0.28 mM

#### 3. OTHER ACTIVITIES (as a percentage of isocitrate dehydrogenase activity):

Enzyme Measured	Substrate	Activity, %
Isocitrate dehydrogenase	D-isocitric acid	100
NADH oxidase	NADH	<0.001
NADPH oxidase	NADPH	<0.01

#### 4. PHYSICOCHEMICAL PROPERTIES:

Recommended conditions of use are at pH 7.6 and up to 25°C.

#### 5. STORAGE AND USE CONDITIONS/RECOMMENDATIONS:

The enzyme is supplied as an ammonium sulphate suspension and should be stored at 4°C. For assay, this enzyme should be diluted in 200 mM Tris.HCl buffer, pH 7.6 containing 10 mM MgCl<sub>2</sub> and 1 mg/ml BSA. **Swirl to mix the enzyme suspension immediately prior to use.**