



## L-Malate Dehydrogenase from *E. coli* (Lot 30801)

**Recombinant**

10/03

E-LMDHEC  
(EC 1.1.1.37)

### PROPERTIES

#### 1. ELECTROPHORETIC PURITY

- Single band on SDS-gel electrophoresis (MW = 34,500)

#### 2. SPECIFIC ACTIVITY AND LEVEL OF OTHER ACTIVITIES

**1130 U/mg protein** at pH 7.5 and 25°C.

One Unit of L-malate dehydrogenase activity is the amount of enzyme required to produce one  $\mu\text{mole}$  of  $\text{NAD}^+$  from NADH under the following assay conditions:

Sodium phosphate buffer	94.6 mM
NADH	0.21 mM
BSA	0.5 mg/ml
Oxaloacetic acid	0.46 mM

#### 3. OTHER ACTIVITIES (as a percentage of L-malate dehydrogenase activity)

Enzyme measured	Substrate	Activity, %
NADH Oxidase	NADH	$5.2 \times 10^{-7}$
Transaminase (as GOT)	L-aspartate/ -ketoglutarate	$5.8 \times 10^{-3}$

All activities were measured at 340 nm in 94.6 mM sodium phosphate buffer (pH 7.5) containing 0.5 mg/ml BSA, at 25°C.

#### 3. PHYSICOCHEMICAL PROPERTIES

Recommended conditions of use are at pH 7.5 and up to 25°C.

#### 4. STORAGE AND USE CONDITIONS/RECOMMENDATIONS

The enzyme is supplied as an ammonium sulphate suspension (approx. 25 KU/ml) and should be stored at 4°C.

**Figure 1. SDS-PAGE analysis of L-malate dehydrogenase (*E. coli*)**

Electrophoresis was performed using a 10% acrylamide gel. Lane 1, low molecular weight markers (Sigma cat. no. M-3918); lane 2, 5 $\mu$ g L-malate dehydrogenase; lane 3, high molecular weight markers (Sigma cat. no. M-3788).

