



L-MALATE DEHYDROGENASE from *E. coli* (Lot 90601c)

Recombinant

E-LMDHEC

03/13

(EC 1.1.1.37) (S)-malate:NAD⁺ oxidoreductase

PROPERTIES

1. ELECTROPHORETIC PURITY:

- Single band on SDS-gel electrophoresis (MW ~ 34,501)
- Single major band on isoelectric focusing (pI ~ 6.5)

2. SPECIFIC ACTIVITY:

1386 U/mg protein at pH 7.5 and 25°C.

One Unit of L-malate dehydrogenase is defined as the amount of enzyme required to produce one μ mole of NAD⁺ from NADH under the following assay conditions:

Sodium phosphate buffer, pH 7.5	92 mM
BSA	0.46 mg/mL
Oxaloacetic acid	0.47 mM
NADH	0.22 mM

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

Enzyme Measured	Substrate	Activity, %
L-Malate dehydrogenase	oxaloacetic acid	100
L-Glutamic oxaloacetic transaminase	L-aspartic acid	< 0.0001
NADH oxidase	NADH	~ 0.0058

4. PHYSICOCHEMICAL PROPERTIES:

Recommended conditions of use are at pH 7.5 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 100 mM Sodium phosphate buffer, pH 7.5, containing 0.5 mg/mL BSA. **Swirl to mix the enzyme suspension immediately prior to use.**