D-LACTATE DEHYDROGENASE from *L. mesenteroides* (Lot 180601b)

Recombinant

E-DLDHLM **08/18**

(EC 1.1.1.28) D-lactate dehydrogenase; (R)-lactate:NAD+ oxidoreductase

CAS: 9028-36-8

PROPERTIES

1. ELECTROPHORETIC PURITY:

- Single band on SDS-gel electrophoresis (MW ~ 36,455)
- One major band on isoelectric focusing (pI ~ 4.8)

2. SPECIFIC ACTIVITY:

1500 U/mg protein (on pyruvic acid) at pH 7.0 and 25°C

One Unit of D-lactate dehydrogenase is defined as the amount of enzyme required to produce one µmole of D-lactate from pyruvic acid (0.77 mM) per minute in the presence of NADH in potassium phosphate buffer (92 mM), pH 7.0 at 25°C

3. SPECIFICITY:

Catalyses the reaction:

D-Lactate + NAD^+ = pyruvate + NADH + H^+

4. RELATIVE RATES OF HYDROLYSIS OF SUBSTRATES:

Enzyme	Substrate	%
D-Lactate dehydrogenase	Pyruvic acid	100
L-Malate dehydrogenase	Oxaloacetic acid	< 0.04
D-Glutamic pyruvic transaminase	D-alanine	< 0.0001
L-Glutamic oxaloacetic transaminase	L-aspartic acid	< 0.0001
Myokinase	AMP	< 0.0001
NADH oxidase	NADH	< 0.0001
Pyruvate kinase	PEP	< 0.0001

Action on all substrates was determined in potassium phosphate buffer (92 mM), pH 7.0 at 25°C.

5. PHYSICOCHEMICAL PROPERTIES:

Recommended conditions of use are at pH 7.0 and up to 37°C

6. STORAGE CONDITIONS:

The enzyme is supplied as an ammonium sulphate suspension containing 0.02% (w/v) sodium azide and should be stored at 4°C. For assay, this enzyme should be diluted in potassium phosphate buffer (92 mM), pH 7.0. **Swirl to mix the enzyme immediately prior to use.**