

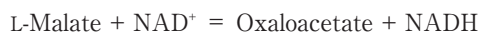
MDH

Malate dehydrogenase

L-Malate : NAD⁺ oxidoreductase (EC 1.1.1.37)

from Yeast

Reaction Equation



Specification

Specific Activity

IU/mg protein

Contaminants

Fumarase (L-Malate)
L-Lactate dehydrogenase
Glutamic-oxaloacetic transaminase
Glutamate dehydrogenase (NAD⁺)
NADH oxidase

Specifications
>1,000 units

<0.01%
<0.01%
<0.01%
<0.001%
<0.001%

Assay Procedure

I. Spectrophotometric Method

Wavelength ; 340 nm, Light path length ; 1 cm,
Temperature ; 25°C

Pipette the following reagents into a cuvette

2.80 mL Potassium phosphate buffer (0.1 mol/L, pH 7.5)
0.15 mL Oxaloacetate (10 mmol/L)
0.05 mL NADH (10 mg/mL) dissolved in Tris
(10 mmol/L)
0.02 mL MDH (about 3 IU/mL)

II. Calculation

$$\frac{\Delta A/\text{min} \cdot V \cdot D}{6.3 \cdot d \cdot v} = \text{IU/mL}$$

$\Delta A/\text{min}$ = The change in absorbance at 340 nm/minute

V = Total volume of reaction mixture (3.02 mL)

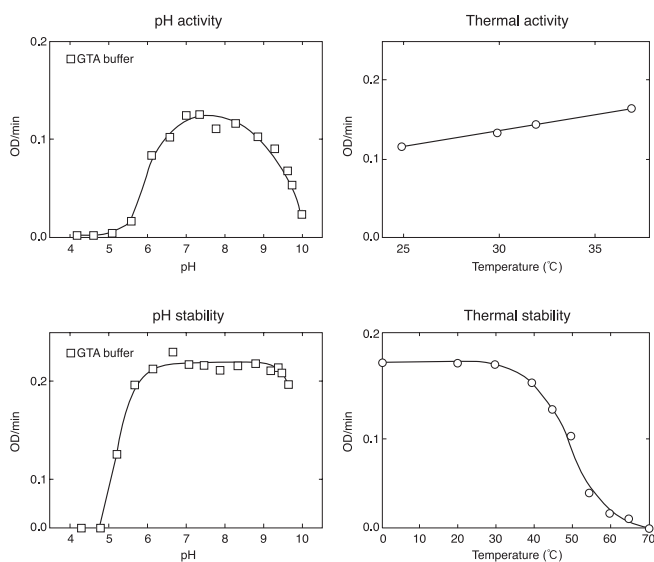
D = Enzyme dilution factor

6.3 = mM extinction coefficient of NADH
(L·mmol⁻¹·cm⁻¹)

d = Light path length (1 cm)

v = Volume of enzyme sample (0.02 mL)

Reference Data



Preparation and storage

Product Code : MDH-22

Ammonium sulfate suspension.....1°C~10°C

IU per 1 ml suspension is approximately 10,000 units.

OYC No./Package

OYC No.	Package
46610022	5,000 units
46611022	25,000 units
46612022	100,000 units
46609902	Bulk

(Research reagent use only, not for medical use.)



ORIENTAL YEAST CO.,LTD.