

We offer various packaging (protein concentration, activity, etc.) if necessary.

## Data sheet

Enzyme ; **Malate dehydrogenase**

Code ; MDH-27-01

Lot No. ; 1-H201T

Protein conc. ; mg/ml

Volume ; ml

Form ; 50 mM Tris-HCl (pH 8.0), 50 mM NaCl

Storage ; -20 °C

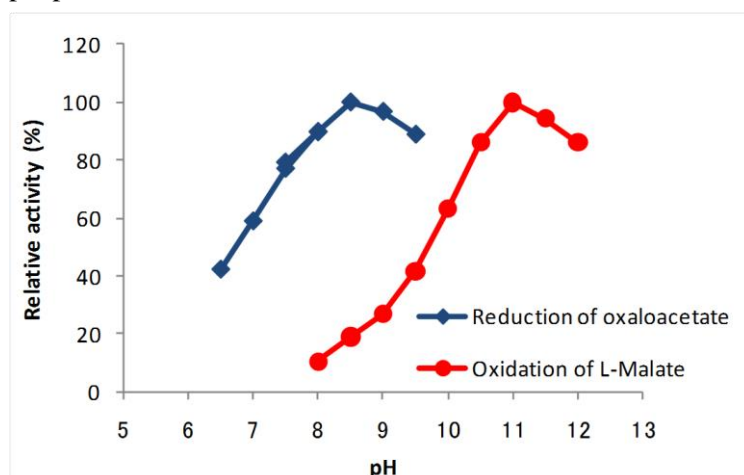
Activity ; U/ml

Notes ; For research use only.

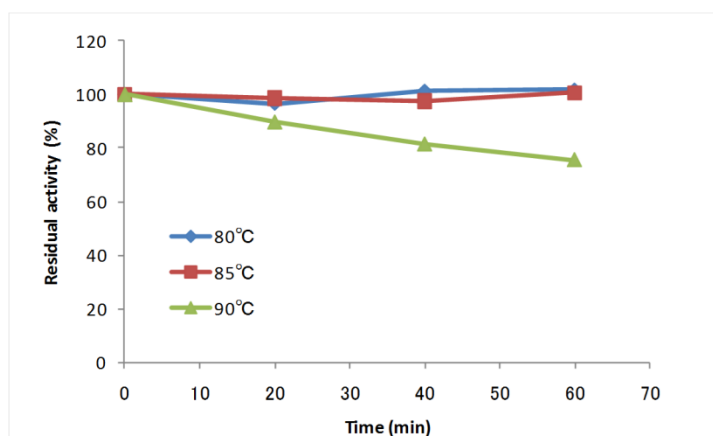
### Activity measurement

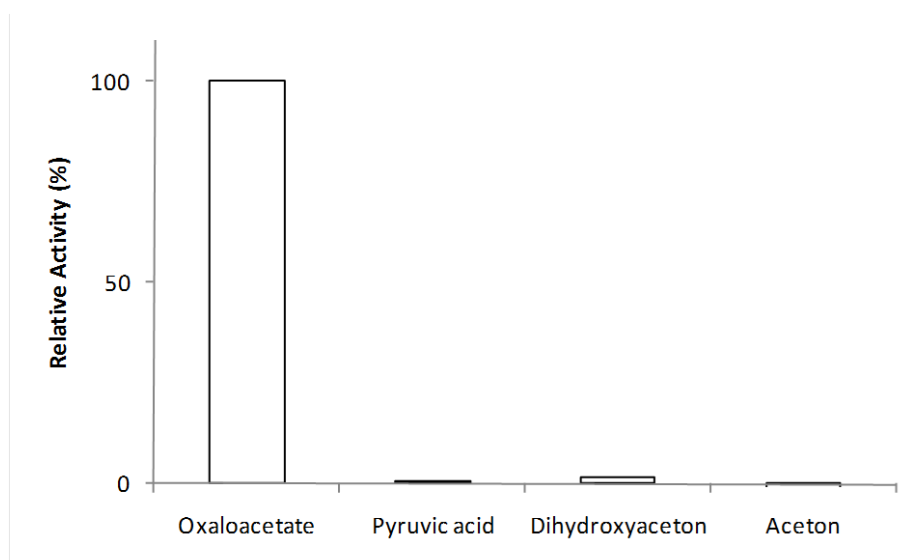
Reaction mix (50 mM Tris-HCl (pH 8.5 @ 25 °C), 0.5 mM Oxaloacetate, 0.3 mM NADH and appropriate amount of the enzyme) was incubated at 37 °C and  $A_{340}$  was monitored. One unit is defined as the amount of the enzyme oxidizing 1  $\mu\text{mol}$  of NADH ( $\epsilon_{340}=6.22 \text{ mM}^{-1} \text{ cm}^{-1}$ ) per 1 minute using Oxaloacetate as a substrate.

### pH profile



### Thermostability





### Kinetic parameters

(a) Reduction of oxaloacetate ( $K_m$  @37 °C、pH 8.5)

Oxaloacetate : 9.5  $\mu$ M、NADH : 6.4  $\mu$ M

(b) Oxidation of Malate ( $K_m$  @37 °C、pH 11)

L-Malate : 26.2  $\mu$ M、D-Malate : 1.3 mM、NAD<sup>+</sup> : 35.2  $\mu$ M