



Recombinant Lactate Oxidase II Catalogue No. RELO-70-1381

Origin: *Aerococcus viridans*

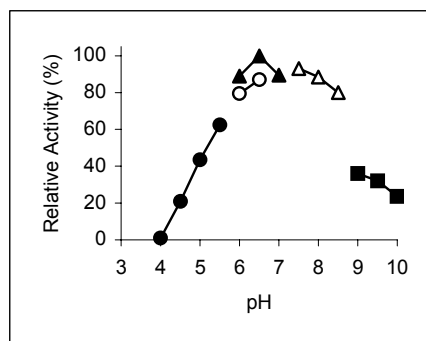
Specifications:

Appearance: Freeze dried powder
 Activity: 20- 60 U/mg powder at 37°C
 Contaminants: Pyruvate oxidase ≤0.001 % U/U
 Glucose oxidase ≤0.001 % U/U
 Uricase ≤0.001 % U/U
 Cholesterol oxidase ≤0.001 % U/U

Characteristics:

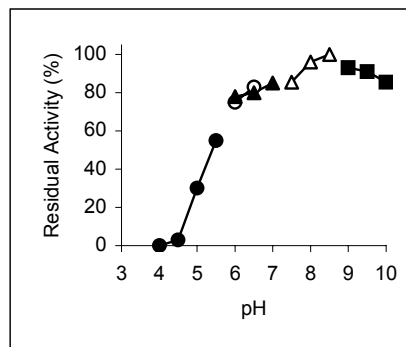
Molecular Weight:	80kDa (gel filtration)	
Isoelectric point:	4.6	
K _m value:	7.0 x 10 ⁻⁴ M	
Optimum pH:	6.0-7.0	See Fig. 1
Optimum temp.:	35°C	
pH stability:	6.0-9.0 (50°C, 10 min.)	See Fig. 2
Thermal stability:	Below 50°C (pH 7.0, 10 min.)	See Fig. 3
Lyophilised stability:	1 year at -20°C	

Fig. 1 pH Optimum



◆ : Acetate buffer
 ◇ : Dimethyl glutarate-NaOH buffer
 ▲ : KH₂PO₄-K₂HPO₄ buffer
 △ : Tris-HCl buffer
 ■ : Glycine-NaOH buffer

Fig. 2 pH Stability

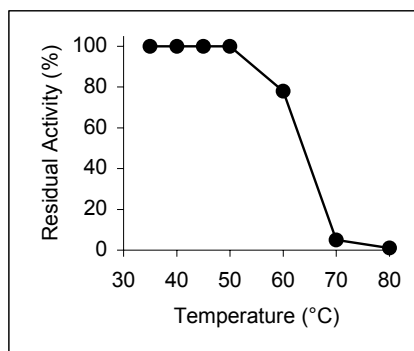


40mM buffer, 50°C, 10 min.
 ◆ : Acetate buffer
 ◇ : Dimethyl glutarate-NaOH buffer
 ▲ : KH₂PO₄-K₂HPO₄ buffer
 △ : Tris-HCl buffer
 ■ : Glycine-NaOH buffer



Recombinant Lactate Oxidase (Catalogue No. 1381)

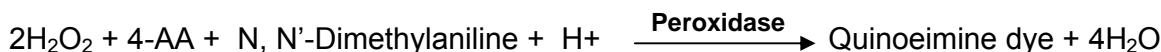
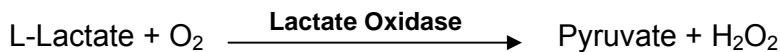
Fig. 3 Thermal Stability



pH 8.5, 10 min. 40mM Tris-HCl buffer

Assay Principle:

Lactate oxidase catalyses the following reaction:



As the formation of quinoneimine dye proceeds the increase in absorbance can be measured spectrophotometrically at 565nm.

Unit Definition:

One unit is defined as the amount of enzyme which generates 1µ mole of Hydrogen Peroxide per minute at 37°C under standard assay conditions.

(See Analytical Method for full details)

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