

## ENZYMES

# Recombinant Lactate Oxidase II

**ORIGIN** *Aerococcus viridans*

**CAT# RELO-70-1381**  
**EC# 1.13.12.4**

### ► SPECIFICATIONS

<b>Appearance</b>	Yellowish lyophilized powder
<b>Activity</b>	20 - 60 U/mg powder at 37°C
<b>Contaminants</b>	<b>Pyruvate Oxidase</b> ≤0.001% U/U
	<b>Glucose Oxidase</b> ≤0.001% U/U
	<b>Uricase</b> ≤0.001% U/U
	<b>Cholesterol Oxidase</b> ≤0.001% U/U

### ► 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.

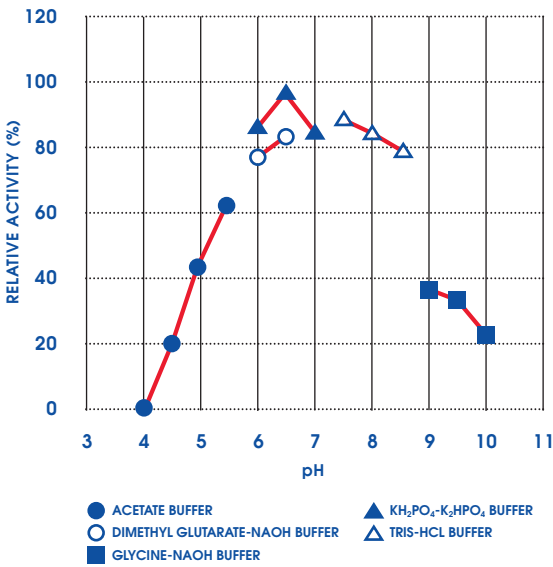
### ► APPLICATION

Useful for enzymatic determination of lactic acid.

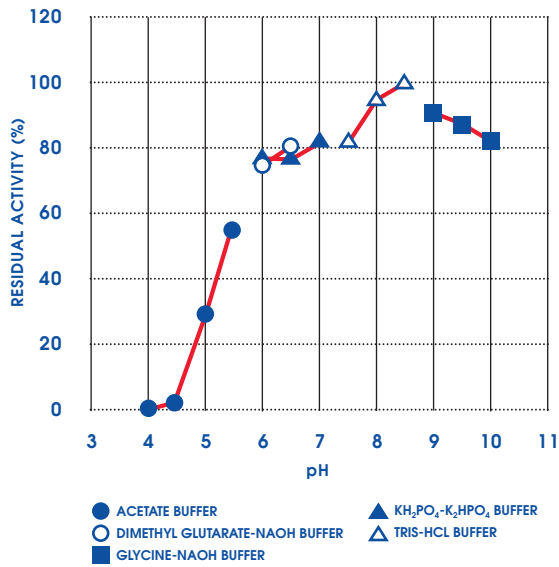
## CHARACTERISTICS

Molecular Weight:	80kDa (gel filtration)
Isoelectric Point:	4.6
$K_m$ value:	$7.0 \times 10^{-4}$ M
Optimum pH (Fig. 1):	6.0 to 7.0
Optimum Temperature:	35°C
pH Stability (Fig. 2):	6.0 to 9.0 (50°C for 10 minutes)
Thermal Stability (Fig. 3):	Stable at 50°C and below (pH 7.0 for 10 minutes)

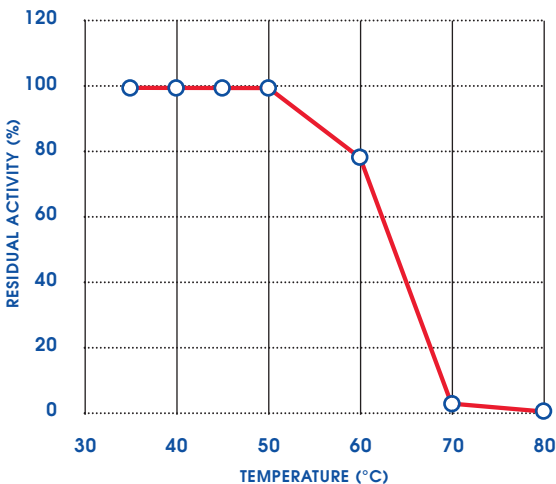
**FIGURE 1: OPTIMUM pH**



**FIGURE 2: pH STABILITY (50°C FOR 10 MINS)**



**FIGURE 3: THERMAL STABILITY (pH 8.5 FOR 10 MINS.)**



**THE AMERICAS**  
 Sekisui Diagnostics, LLC  
 4 Hartwell Place  
 Lexington, MA 02421  
 Phone: 800 332 1042  
 Fax: 800 762 6311

**INTERNATIONAL**  
 Sekisui Diagnostics (UK) Limited  
 Liphook Way, Allington  
 Maidstone, Kent, ME16 0LQ, UK  
 Phone: +44 1622 607800  
 Fax: +44 1622 607801

engage@sekisuienzymes.com  
 www.sekisuienzymes.com

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