

ENZYMES

BY

SORACHIM

Peroxidase from Horseradish

PEO-131

SPECIFICATIONS

Product name	Donor:hydrogen-peroxidase oxidoreductase
EC	1.11.1.7
Appearance	Reddish brown amorphous powder lyophilized
Activity	Grade I, 250 Purpurogallin U/mg-solid or more (RZ \geq 3.0 salt free)
Stability	Stable at - 20°C for at least 12 months
Molecular weight	approx. 40,000
Structure	Glycoprotein with one mole of protohaemin IX
Inhibitors	Cyanide, sulfide, fluoride, azide
Optimum pH	6.0 - 7.0
Optimum temperature	45 °C
pH Stability	pH 5.0 - 10.0 (25 °C, 20hr)
Thermal stability	below 50 °C (pH 6.0, 10min)

PEO 131 is chromatographically separated from the other isoenzymes using SP Sephadex C-50 by the modified method of Paul et al. The peroxidase fractions having equal RZ values (ca.3.3) are combined to generate the preparation. This preparation has an RZ value of ca.3.3 and is electrophoretically homogeneous.

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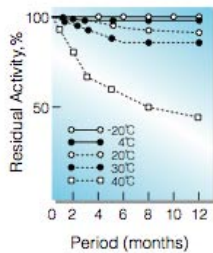


Fig.1. Stability (Powder form)
(kept under dry conditions)

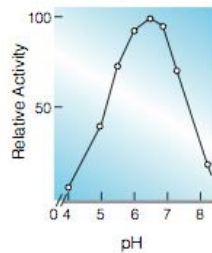


Fig.3. pH-Activity
(20°C, 20sec-reaction in 0.1M buffer solution: pH4.0-6.0, acetate; pH6.0-8.0, phosphate)

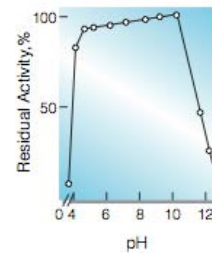


Fig.5. pH-Stability
(25°C, 20hr-treatment with 50mM buffer solution: pH3.5-6.0, acetate; pH6.0-8.0, phosphate; pH9.0-11.0 borate)

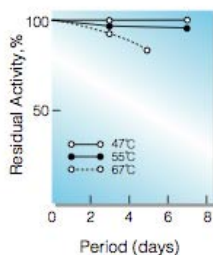


Fig.2. Stability (Powder form)
(kept under dry conditions)

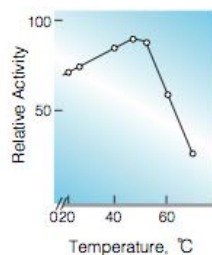


Fig.4. Temperature activity
(20sec-reaction in 0.1M phosphate buffer, pH6.0)

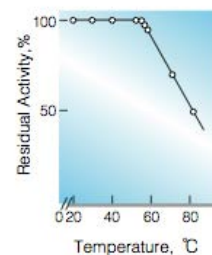


Fig.6. Thermal stability
(10min-treatment with 50mM phosphate buffer, pH6.0)

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