

Peroxidase Assay Kit

Cat. No. Kit-2432 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

PEROXIDASES (EC number 1.11.1.x) catalyze the following oxidation-reduction reactions: $\text{ROOR} + \text{electron donor (2 e-)} + 2\text{H}^+ \rightarrow \text{ROH} + \text{R'OH}$. For many peroxidases the optimal substrate is hydrogen peroxide (H_2O_2), but others are more active with organic hydroperoxides such as lipid peroxides. In the cell, peroxidases destroy toxic hydroxide radicals that are formed as byproducts during aerobic respiration. The peroxidases represent a large family of enzymes that are found in animals (e.g. myeloperoxidase-like enzymes), plant, fungi and bacteria (cytochrome-c peroxidase like enzymes such a horseradish peroxidase). Simple, direct and automation-ready procedures for determining peroxidase activity find wide applications. peroxidase assay uses H_2O_2 and an electron donor dye that forms a pink color during the peroxidase reaction. The optical density (570nm) or fluorescence intensity ($\lambda_{\text{ex/em}} = 530/590\text{nm}$) is a direct measure of the enzyme activity.

Storage

4, -20°C

Shipping

RT

Size

100 tests

Detection method

OD570nm, or FL530/585nm

Compatible Sample Types

Biological

Features & Benefits

Fast and sensitive. Use as little as 10 μL samples. Linear detection range:

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colorimetric assays 2 to 50 U/L, fluorimetric assays 0.1 to 5 U/L peroxidase.
Convenient and high-throughput. Homogeneous "mix-incubate-measure" type assay.
Can be readily automated on HTS liquid handling systems for processing thousands of samples per day.

Assay time	20 min
Sensitivity	OD, FL: 4, 0.8 U/L