

Peroxidase Activity

Colorimetric/Fluorometric Assay Kit

Product Information

Cat

Kit-1103

Cat.No.

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Description

Peroxidases (EC number 1.11.1.x) are a large family of enzymes that typically catalyze a reaction of the form: $\text{ROOR} + \text{electron donor (2 e-)} + 2\text{H}^+ \rightarrow \text{ROH} + \text{ROH}$. For many of these enzymes the optimal substrate is hydrogen peroxide, but others are more active with organic hydroperoxides such as lipid peroxides. Peroxidases can contain a heme cofactor in their active sites, or alternately redox-active cysteine or selenocysteine residues. Peroxidase Assay Kit provides a convenient colorimetric and fluorometric means to measure the peroxidase activity in biological samples. In the presence of Peroxidase, the OxiRed Probe reacts with H_2O_2 in a 1:1 stoichiometry to produce the red-fluorescent oxidation product, resorufin. The resorufin is quantified by colorimetric ($\lambda_{\text{max}} = 570\text{nm}$) or fluorometric methods ($\text{Ex/Em} = 535/587\text{ nm}$). The assay is simple, direct, highly sensitive and high throughput-ready. The detection limit is 0.1 mU per well via colorimetric or 0.01 mU per well via fluorometric method, based on our unit definition.

Applications

The kit has a detection limit of 0.1 mU per well via colorimetric or 0.01 mU per well via fluorometric method, based on our unit definition.

Storage

-20°C

Shipping

Gel Pack

Size

100 assays

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Kit Components

Assay Buffer; OxiRed; Probe (in DMSO); H₂O₂ Substrate (0.88 M); HRP Positive Control

Target Species

Mammalian

Detection method Absorbance (570 nm) or Fluorescence (Ex/Em=535/587)

Features & Benefits

The assay is simple, direct, highly sensitive and high-throughput adaptable