abcam

Product datasheet

Peroxidase Activity Assay Kit ab155895

2 References 2 Images

Overview

Product name Peroxidase Activity Assay Kit

Detection methodColorimetric/Fluorometric

Sample type Cell culture supernatant, Urine, Serum, Plasma, Other biological fluids

Assay type Enzyme activity

Species reactivity Reacts with: Mammals, Other species

Product overview Abcam's Peroxidase Assay Kit (ab155895) 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 redfluorescent oxidation product, resorufin. The resorufin is quantified by colorimetric (λ max = 570nm) or fluorometric methods (Ex/Em = 535/587 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.

NotesThis product is manufactured by BioVision, an Abcam company and was previously called K772

Peroxidase Activity Colorimetric/Fluorometric Assay Kit. K772-100 is the same size as the 100

test size of ab155895.

Peroxidases (EC number 1.11.1.x) are a large family of enzymes that typically catalyze a reaction of the form: ROOR' + electron donor (2 e-) + $2H+ \rightarrow ROH + R'OH$. 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.

Platform Microplate reader

Properties

Storage instructions Store at -20°C. Please refer to protocols.

Assay Buffer XVIII 1 x 25ml	
Developer Solution V 1 vial	

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Components	100 tests
H2O2 Standard	1 x 0.1ml
OxiRed Probe	1 x 0.2ml

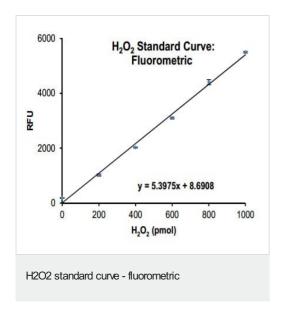
Relevance

Horseradish Peroxidase (HRP) is an enzyme commonly used as an indicator for chemical reactions which produce peroxide. The enzyme is routinely conjugated to antibodies for use in enzyme-based immunoassay systems. HRP functions in the removal of H2O2 (hydrogen peroxide), oxidation of toxic reductants, biosynthesis and degradation of lignin, suberization, auxin catabolism, response to environmental stresses such as wounding, pathogen attack and oxidative stress. These functions might be dependent on each isozyme/isoform in each plant tissue.

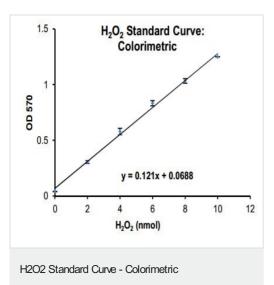
Cellular localization

Secreted Probable. Vacuole Probable. Note: Carboxy-terminal extension appears to target the protein to vacuoles.

Images



An example of a Fluorimetric Standard Curve



An example of a Colorimetric Standard Curve

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