

Product datasheet

Catalase Activity Assay Kit (Colorimetric/Fluorometric) ab83464

★★★★★ 2 Abreviews 55 References 2 Images

Overview

Product name	Catalase Activity Assay Kit (Colorimetric/Fluorometric)
Detection method	Colorimetric/Fluorometric
Sample type	Urine, Serum, Plasma, Cell Lysate, Tissue Lysate
Assay type	Enzyme activity (quantitative)
Assay time	0h 40m
Species reactivity	Reacts with: Mammals
Product overview	<p>Catalase Activity Assay Kit (Colorimetric/Fluorometric) (ab83464) is a highly sensitive, simple and direct assay for measuring catalase activity in a variety of biological samples such as cell and tissue lysates or biological fluids.</p> <p>In the catalase activity assay protocol, the catalase present in the sample reacts with hydrogen peroxide (H₂O₂) to produce water and oxygen. The unconverted H₂O₂ reacts with probe to produce a product that can be measured colorimetrically at OD 570 nm or fluorometrically at Ex/Em = 535/587 nm. Therefore, the catalase activity present in the sample is reversely proportional to the signal obtained. The kit can detect as little as 1 μU of catalase activity.</p> <p>Catalase activity assay protocol summary:</p> <ul style="list-style-type: none"> - add samples and standards to wells - add stop solution into sample control wells and incubate at 25°C for 5 min - add H₂O₂ solution into wells and incubate for 30 min at 25°C - add stop solution - add developer mix and incubate for 10 min at 25°C - analyze with microplate reader
Notes	This product is manufactured by BioVision, an Abcam company and was previously called K773 Catalase Activity Colorimetric/Fluorometric Assay Kit. K773-100 is the same size as the 100 test size of ab83464.
Platform	Microplate reader

Properties

Storage instructions

Store at +4°C. Please refer to protocols.

Components	Identifier	100 tests	2000 tests
Catalase Assay Buffer	NM	1 x 25ml	20 x 25ml
Catalase Positive Control	Blue	1 x 2µl	20 x 2µl
HRP (Lyophilised)	Green	1 vial	20 vials
Hydrogen peroxide	Yellow	1 x 25µl	20 x 25µl
OxiRed Probe	Red	1 x 200µl	20 x 2000µl
Stop Solution	White	1 x 1ml	20 x 1ml

Function

Occurs in almost all aerobically respiring organisms and serves to protect cells from the toxic effects of hydrogen peroxide. Promotes growth of cells including T-cells, B-cells, myeloid leukemia cells, melanoma cells, mastocytoma cells and normal and transformed fibroblast cells.

Involvement in disease

Defects in CAT are the cause of acatalasia (ACATLAS) [MIM:115500]; also known as acatalasemia. This disease is characterized by absence of catalase activity in red cells and is often associated with ulcerating oral lesions.

Sequence similarities

Belongs to the catalase family.

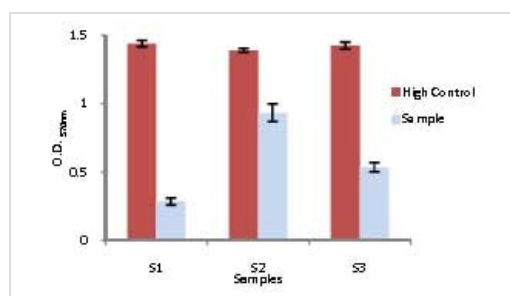
Post-translational modifications

The N-terminus is blocked.

Cellular localization

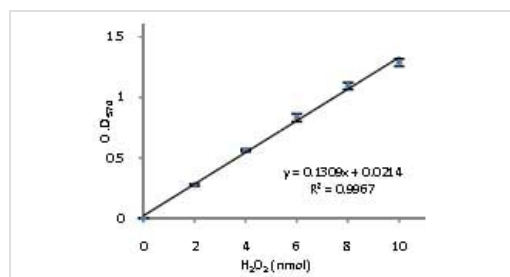
Peroxisome.

Images



Functional Studies - Catalase Assay Kit (ab83464)

Sample tests using ab83464.



Functional Studies - Catalase Assay Kit (ab83464)

H₂O₂ standard curve using ab83464.

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