

Hydrogen Peroxide Assay Kit ab102500

[82 References](#) [3 Images](#)

Overview

Product name	Hydrogen Peroxide Assay Kit
Sample type	Serum, Plasma, Other biological fluids, Cell Lysate, Cell culture media
Assay type	Quantitative
Sensitivity	> 0.04 μ M
Assay time	1h 00m
Product overview	Hydrogen Peroxide Assay Kit ab102500 is a highly sensitive, simple, direct and HTS-ready colorimetric and fluorometric assay for measuring H_2O_2 in biological samples.

In the hydrogen peroxide assay protocol, horse radish peroxidase (HRP) reacts with a probe and H_2O_2 to produce a product with color (λ_{max} = 570 nm) and red-fluorescence (Ex/Em=535/587 nm).

The detection limit is 2 pmol per assay (or 40 nM concentration) of H_2O_2 in the sensitive fluorometric assay.

Hydrogen peroxide assay protocol summary:

- add standards and samples to wells
- add reaction mix and incubate for 10 min
- analyze with microplate reader

Notes This product is manufactured by BioVision, an Abcam company and was previously called K265 Hydrogen Peroxide Colorimetric/Fluorometric Assay Kit. K265-200 is the same size as the 200 test size of ab102500.

The kit can perform 200 reactions by fluorometric method or 100 reactions by colorimetric method.

Hydrogen Peroxide (H_2O_2) is a reactive oxygen metabolic byproduct that serves as a key regulator for a number of oxidative stress-related states. Functioning through NF-kappaB and other factors, hydroperoxide-mediated pathways have been linked to asthma, inflammatory arthritis, atherosclerosis, diabetic vasculopathy, osteoporosis, neuro-degenerative diseases, Down's syndrome and immune system diseases.

Platform Microplate reader

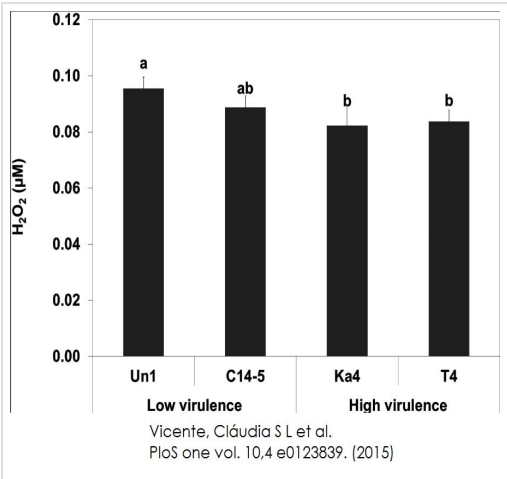
Properties

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

Components	200 tests
Assay Buffer XVIII	1 x 25ml
H2O2 Standard	1 x 0.1ml
Developer Solution V	1 unit
OxiRed Probe	1 x 200µl

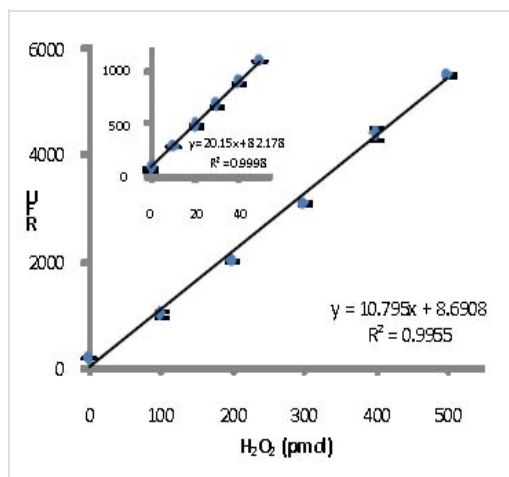
Relevance Hydrogen Peroxide (H₂O₂) is a reactive oxygen metabolic byproduct that serves as a key regulator for a number of oxidative stress-related states. Functioning through NF-κB and other factors, hydroperoxide-mediated pathways have been linked to asthma, inflammatory arthritis, atherosclerosis, diabetic vasculopathy, osteoporosis, neuro-degenerative diseases, Down's syndrome and immune system diseases.

Images



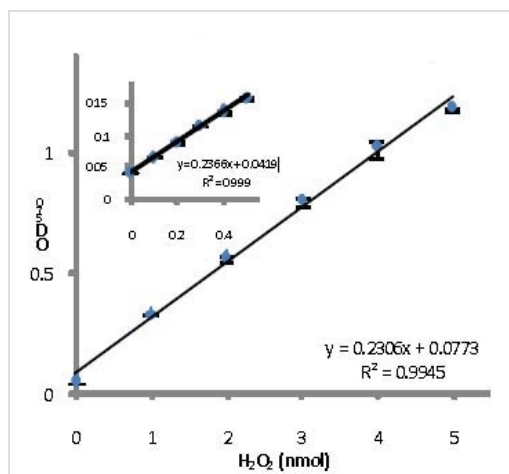
H₂O₂ neutralization of of Bursaphelenchus sp. isolates (high virulence B. xylophilus Ka4 and B. xylophilus T4, and low virulence B. xylophilus C14-5 and B. mucronatus Un1) after 24 hours exposition to H₂O₂. Error bars represent standard deviation. Different letters above the columns indicate significant differences (p < 0.05) between Bursaphelenchus sp. isolates H₂O₂ neutralization, according to post-hoc Duncan's test.

Functional Studies - Hydrogen Peroxide Assay Kit (ab102500)
Vicente, Cláudia S L et al., PloS one vol. 10,4 e0123839., Fig 2, doi:10.1371/journal.pone.0123839



H₂O₂ Fluorimetric Standard Curve

Functional Studies - Hydrogen Peroxide Assay Kit
(ab102500)



H₂O₂ Colorimetric Standard Curve

Functional Studies - Hydrogen Peroxide Assay Kit
(ab102500)

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