

Hydrogen Peroxide/Peroxidase Assay Kit

OxiSelect Hydrogen Peroxide/Peroxidase Assay Kit (Colorimetric)

CATALOG #

AAA11439

PRODUCT SYNONYMS

Hydrogen Peroxide/Peroxidase; OxiSelect Hydrogen Peroxide/Peroxidase Assay Kit (Colorimetric); Hydrogen Peroxide/Peroxidase assay kit

PRODUCT SPECIFICATIONS

Preparation and Storage

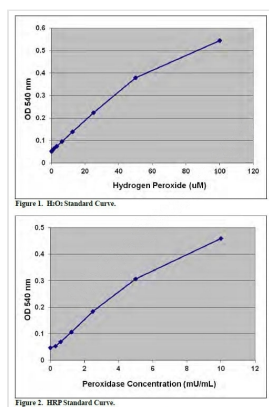
Upon receipt, aliquot and store the Colorimetric Probe and HRP at -20 degree C

Avoid multiple freeze/thaw cycles

Store the remaining kit components at 4 degree C

The Colorimetric Probe is light sensitive and must be stored accordingly.

IMAGES



Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for Hydrogen Peroxide/Peroxidase assay kit	Background: Oxidative stress is a physiological condition where there is an imbalance between concentrations of reactive oxygen species (ROS) and antioxidants. Research has shown that excessive ROS accumulation will lead to cellular injury, such as damage to DNA, proteins, and lipid membranes. Peroxides, such as hydrogen peroxide (H₂O₂), are some of the most well documented ROS produced under oxidative stress conditions. Hydrogen peroxide is an ROS that is a toxic product of normal aerobic metabolism and pathogenic ROS production involving oxidase and superoxide dismutase reactions. Hydrogen peroxide is poisonous to eukaryotic cells and in high doses can initiate oxidation of DNA, lipids, and proteins, which can lead to mutagenesis and cell death. The cellular damage caused by peroxides have been implicated in the development of many pathological conditions, such as ageing, asthma, arthritis, diabetes, cardiovascular disease, atherosclerosis, Down's Syndrome, and neurodegenerative diseases. OxiSelect™ Hydrogen Peroxide/Peroxidase Assay Kit is a simple HTS-compatible assay for measuring hydrogen peroxide concentrations or peroxidase activities in biological samples without any need for pretreatment. The colorimetric probe reacts with H₂O₂ and horseradish peroxidase enzyme (HRP) to produce a pink colored product. The probe has less background and greater stability than the commonly used Xylenol Orange (FOX) colorimetric assay for H₂O₂. The probe can be also used as an ultrasensitive assay for peroxidase activity when H₂O₂ is in excess. The kit has a detection sensitivity limit of 0.8 uM (H₂O₂) or 0.16 mU/mL (peroxidase). Each kit provides sufficient reagents to perform up to 500 assays, including standard curve and unknown samples. Principle of the Assay: The OxiSelect™ Hydrogen Peroxide/Peroxidase Assay Kit is a sensitive quantitative colorimetric assay for hydrogen peroxide or peroxidase. In the presence of peroxidase, the probe reacts with H₂O₂ in a 1:1 stoichiometry to produce a bright pink colored product. This product can be easily read by a standard colorimetric microplate reader with a filter in the 540-570 nm range. Absorbance values are proportional to the H₂O₂ or peroxidase levels within the samples, depending on the assay employed. The H₂O₂ or peroxidase content in unknown samples is determined by comparison with its respective standard curve.
Product Categories/Family for Hydrogen Peroxide/Peroxidase assay kit	Oxidative Stress/Damage ; Reactive Oxygen Species ; Hydrogen Peroxide Assays ; Hydrogen Peroxide/Peroxidase Assay Kit (Colorimetric)

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/assay-kits/hydrogen-peroxide-peroxidase/11439>