

Cytochrome Oxidase Activity Colorimetric Assay Kit

Product Information

Cat.No.

Kit-0267

Product Overview

Simple & Rapid High-throughput adaptable The kit provides unique formulation of buffers & reagents to measure cytochrome oxidase activity

Size

100 assays

Description

Cytochrome c Oxidase (EC 1.9.3.1) or Complex IV is the fourth complex of the Electron Transport Chain located in the mitochondrial (or bacterial) membrane. It provides energy to the cell by coupling electron transport through the Cytochrome c chain with the process of oxidative phosphorylation. Complex IV contains 13 different subunits encoded by both mitochondrial DNA and nuclear DNA. It receives an electron from each of the four Cytochrome c molecules, and transfers it to one oxygen molecule, converting it into two molecules of water. In this process, it also binds to four proton molecules and translocates them across the membrane to establish electrochemical gradient, which is utilized for the synthesis of ATP. Cytochrome Oxidase Activity Assay Kit is simple, fast and high-throughput adaptable. This assay kit can be used for purified mitochondria or tissue extracts containing mitochondria. The activity of the enzyme is determined colorimetrically by following the oxidation of reduced Cytochrome c as an absorbance decrease at 550 nm.

Applications

Useful for mitochondrial respiration studies, assembly of the complexes, mitochondria outer membrane integrity.

Usage

For Research Use Only! Not For Use in Humans

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Storage

-20°C

Kit Components

- Cytochrome Oxidase Assay Buffer • Enzyme Dilution Buffer • 1 M DTT • Cytochrome c • 96-well Plate

Detection method Simple and rapid measurement of cytochrome oxidase enzymatic activity in 96-well plate format.

Compatible Sample Types

- Purified mitochondria • Cells/Tissue extracts