

Mit Complex IV Activity Assay Kit

Cat. No. Kit-0248 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Complex IV Activity Assay is designed to measure the direct oxidation of cytochrome c by complex IV, in an isolated bovine heart mitochondrial system that is supplied within the kit. Complex IV Activity Assay allows for the quick and easy measurement of complex IV activity. For the use of this kit with other types of tissue mitochondria, please see Mitochondrial (Tissue) Isolation Kit.

Description

Complex IV (cytochrome c oxidase) is the terminal electron acceptor in the mitochondrial electron transport chain. Complex IV functions by oxidizing cytochrome c and completing a four electron reduction of oxygen (O₂) to form H₂O. During this process, two protons are translocated from the mitochondrial matrix to the intermembrane space, contributing the mitochondrial membrane potential required for ATP synthesis. This assay is designed to measure the direct oxidation of cytochrome c by complex IV in an isolated bovine heart mitochondrial system. Common inhibitors of complex IV include potassium cyanide, azide, O₂ limitation, nitric oxide, and carbon monoxide.

Usage

Please read these instructions carefully before beginning this assay. For research use only. Not for human or diagnostic use. NOTE: It is recommended that gloves be worn at all time when working with isolated mitochondria and mitochondrial inhibitors.

Storage

Stability: 1 year; Storage: -80°C; This kit will perform as specified if stored as directed in the Materials Supplied section and used before the expiration date indicated on the outside of the box.

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Kit Components

Kit will arrive packaged as a -80°C kit. For best results, remove components and store as stated below. Mitochondrial Complex IV Activity Assay Buffer: 2 vials/10 ml, -20°C; Reduced Cytochrome c Assay Reagent: 1 vial/6 mg, -80°C; Bovine Heart Mitochondria Assay Reagent: 1 vial/100 μ -80°C; Half Volume 96-Well Clear Plate: 1 plate, Room temperature

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