

Succinate Dehydrogenase Activity Colorimetric Assay Kit

Product Information

Cat.No.

Kit-0779

Product Overview

Succinate Dehydrogenase Activity Assay Kit (Colorimetric) is used to measure Succinate Dehydrogenase activity.

Description

Succinate Dehydrogenase (SDH) (EC 1.3.5.1) or succinate-coenzyme Q reductase (SQR) or respiratory complex II is an enzyme complex, which is bound to the inner mitochondrial membrane. SDH participates in both the citric acid cycle and electron transport chain. In mammals and many bacteria, SDH consists of 2 hydrophilic subunits, SDHA (flavoprotein) and SDHB (iron-sulfur protein) and 2 hydrophobic membrane anchor subunits: SDHC and SDHD. SDH oxidizes succinate to fumarate and transfers the electrons to ubiquinone. SDH deficiency in humans leads to a variety of phenotypes including Leigh syndrome, a neurometabolic disorder, tumor formation, and myopathy. Recent studies show that SDH can prevent the generation of ROS (reactive oxygen species); therefore, measurement of succinate dehydrogenase activity has wide applications. Succinate Dehydrogenase Activity Assay kit is rapid, simple and high-throughput adaptable. In this assay, Succinate dehydrogenase converts succinate to fumarate, and transfers the electron to an artificial electron acceptor (Probe), which changes the color from blue to a colorless product (depending upon the sample enzymatic activity).

Applications

Measurement of Succinyl-CoA Dehydrogenase Activity in various tissues/cells
Analysis of citric acid cycle

Target Species

Mammals

Usage

For research use only (RUO)

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Storage

Store the kit at -20°C, protected from light.

Kit Components

SDH Assay Buffer 25 mLSDH Substrate Mix (Lyophilized) 1 vialSDH Probe 0.2 mLDCIP Standard (2 mM)
0.4 mLSDH Positive Control (Lyophilized) 1 vial

Detection method Colorimetric

Compatible Sample Types

Animal tissues: heart, liver, muscle, etc.Cell culture: adherent or suspension cellsPurified mitochondria