

Product datasheet

MitoTox™ Complex IV OXPHOS Activity Assay Kit ab109906

[6 References](#) [1 Image](#)

Overview

Product name	MitoTox™ Complex IV OXPHOS Activity Assay Kit
Detection method	Colorimetric
Assay type	Direct
Assay time	5h 00m
Species reactivity	Reacts with: Cow, Human
Product overview	MitoTox™ Complex IV OXPHOS Activity Assay Kit (ab109906) is designed for testing the direct inhibitory effect of compounds on Complex IV activity in only 5 hours. Complex IV extracted from the provided bovine heart mitochondria (a rich source of Complex IV) is immunocaptured by specific antibodies on the plate. Complex IV activity can be observed as decrease in absorbance at OD 550 nm. The intra-assay and inter-assay variation of this assay are both <10%.

Inhibitory effects of compounds on Complex IV activity can be tested in two different ways: 1. Screening format, where up to 23 compounds can be tested at a single concentration in triplicate; 2. Dose response (IC₅₀) format, where two compounds known to affect Complex IV activity can be tested at 11 different data points in triplicate.

Testing for mitochondrial function has become a key aspect of drug discovery. Mitochondria can be affected by drug treatment, resulting into cardio- and hepatotoxic side effects that can lead to drug withdrawal from the market. Therefore, there is increasing emphasis on testing the impact on mitochondria early on in the drug development process to reduce failure rates during preclinical and clinical phases.

Notes Store Bovine Heart Mitochondria and Reagent C at -80°C. Store all other components at 4°C.

Related products

Review the [mitochondrial assay guide](#), or the full [metabolism assay guide](#) to learn about more assays for metabolites, metabolic enzymes, mitochondrial function, and oxidative stress, and also how to assay metabolic function in live cells using your plate reader.

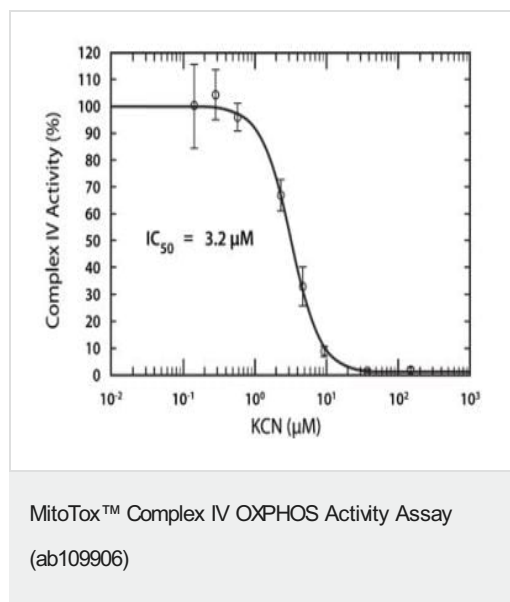
Properties

Storage instructions

Please refer to protocols.

Components	96 tests
12-channel reagent reservoirs	2 units
1X Blocking Buffer	1 x 70ml
1X Complex IV Mito Buffer	1 x 110ml
Bovine Heart Mitochondria	1 x 90µl
Detergent	1 x 20µl
Blocking Powder	1 x 1.8g
Pre-coated 96-well microplate	1 unit
Reagent C (Reduced Cytochrome c)	2 x 1ml

Images



Typical dose response curve for KCN. Assay was performed following the Dose Response Assay Procedure using KCN, a well known Complex IV inhibitor. KCN was prepared in 0.1 M NaOH to generate a 100 mM stock. Starting with a 100 µM final concentration in well, 1:10 serial dilutions of KCN were generated.

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