abcam

Product datasheet

MitoTox™ Complex I OXPHOS Activity Assay Kit ab109903

13 References 1 图像

产品名称 MitoTox™ Complex I OXPHOS Activity Assay试剂盒

检测方法 Colorimetric

样品类型 Inhibitor compounds

检测类型 Quantitative

检测时间 5h 00m

产品概述
MitoTox™ Complex I OXPHOS Activity Assay (ab109903) is designed for testing the direct inhibitory effect of compounds on Complex I activity in only 5 hours. Complex I extracted from the provided bovine heart mitochondria (a rich source of Complex I) is immunocaptured by specific antibodies on the plate. Complex I activity can be observed as decrease in absorbance at

OD 340 nm. The intra-assay and inter-assay variation of this assay are both < 10%.

Inhibitory effects of compounds on Complex I 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 (IC_{50}) format, where two compounds known to affect Complex I 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.

Store Phospholipids, Bovine heart mitochondria, Ubiquinone and Activity Buffer at -80°C. Store all other components at 4°C.

Related products

Review the <u>mitochondrial assay guide</u>, or the full <u>metabolism assay guide</u> 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.

平台 Microplate reader

性能

说明

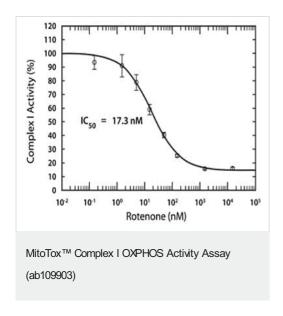
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存放说明

Please refer to protocols.

组件	96 tests
12-channel reagent reservoirs	2 units
1X Mito Buffer	1 x 5ml
20X Wash Buffer	1 x 5ml
Bovine heart mitochondria	1 x 360µl
Complex I Activity Buffer	1 x 24ml
Detergent	1 x 100µl
Phospholipids	1 x 6ml
Pre-coated 96-well microplate	1 unit
Ubiquinone 1	1 x 60µl

图片



Typical dose response curve for rotenone. Assay was performed following the Dose Response Assay Procedure using rotenone, a well known Complex I inhibitor. Rotenone was prepared in DMSO to generate a 10 mM stock. Starting with a 50 μ M final concentration in well, 1:10 serial dilutions of rotenone were generated.

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