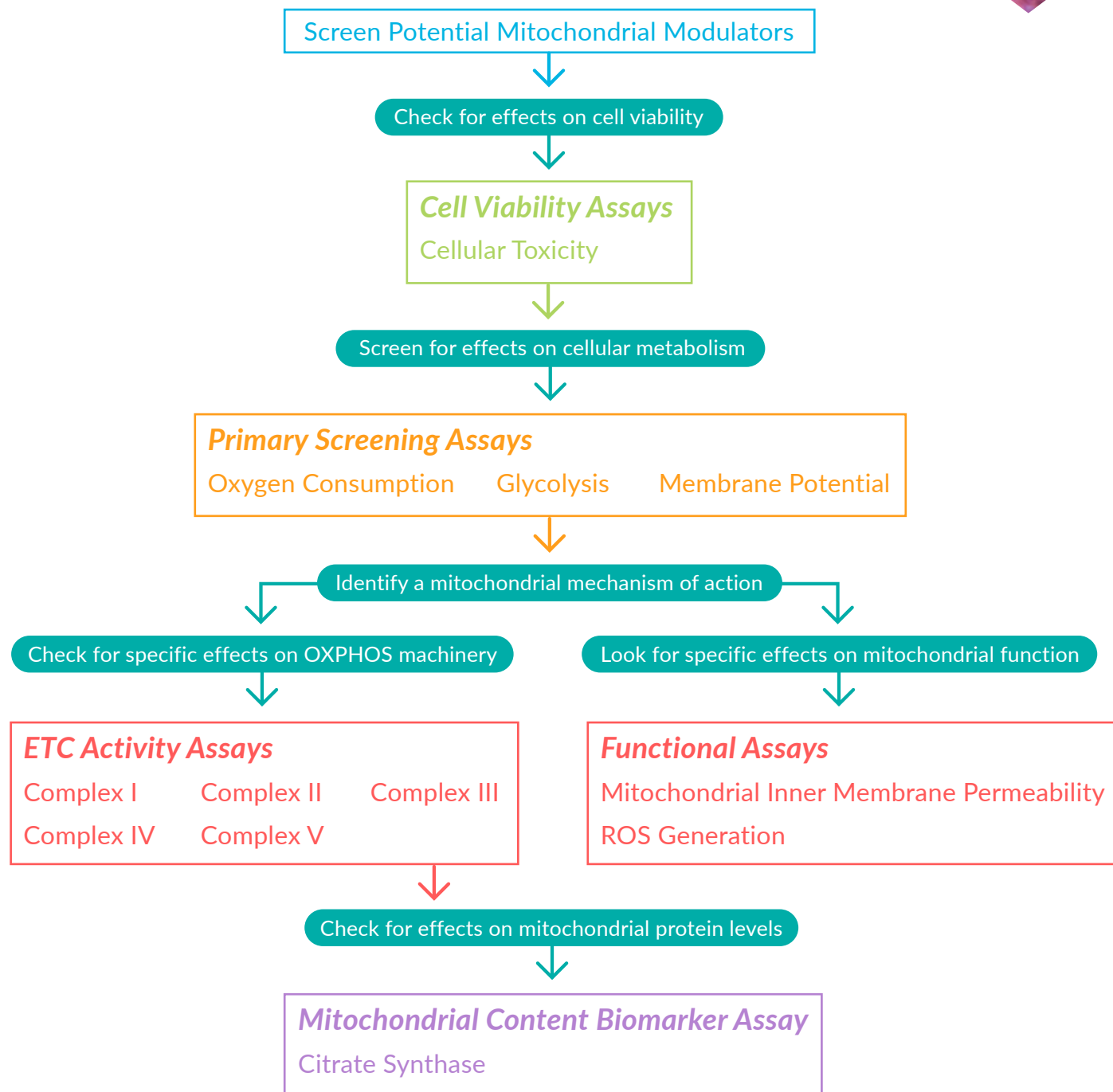


Mitochondrial Function Assays



Cayman Chemical offers a set of assays to assess mitochondrial function and profile for compound toxicity. This encompasses a series of preliminary screens that determine mitochondrial function in intact cells followed by a series of functional assays that focus on mitochondrial function at the level of the isolated organelle.



CELLULAR METABOLISM SERVICES

Learn how Cayman's Cellular Metabolism Services can help with your mitochondrial function, toxicity, and biogenesis studies. Our scientists are experts in mitochondrial toxicity screening, as well as metabolic and functional analysis of mitochondria and whole cells.

www.caymanchem.com/cellmetabolism

Cell Viability Assays

Cell Proliferation and Viability Assays

Assess the number of viable cells, loss of viable cells, ATP levels, or shift from proliferation to quiescence

Item No.	Product Name
700410	ATP Detection Assay Kit - Luminescence
10009365	MTT Cell Proliferation Assay Kit
10008883	WST-1 Cell Proliferation Assay Kit
10010199	WST-8 Cell Proliferation Assay Kit
10010200	XTT Cell Proliferation Assay Kit

Cytotoxicity Assays

Monitor cell toxicity in multiple ways: Differentially label dividing and dead cells, identify autophagic vacuoles, or measure enzymes released from damaged cells

Item No.	Product Name
600140	Autophagy/Cytotoxicity Dual Staining Kit
601170	LDH Cytotoxicity Assay Kit

Primary Screening Assays

Oxygen Consumption Assay

Measure OCR in living cells and mitochondria without an oxygen electrode

Item No.	Product Name
600800	Oxygen Consumption Rate Assay Kit

Glucose Metabolism Assays

Measure glucose metabolism and study modulators of cellular glucose uptake

Item No.	Product Name
10009582	Glucose Colorimetric Assay Kit
600470	Glucose Uptake Cell-Based Assay Kit
600450	Glycolysis Cell-Based Assay Kit
700520	D-Lactate Assay Kit
700510	L-Lactate Assay Kit

Membrane Potential Assays

Simple tests to measure mitochondrial health in whole cells

Item No.	Product Name
10009172	JC-1 Mitochondrial Membrane Potential Assay Kit
701560	JC-1 Mitochondrial Membrane Potential Flow Cytometry Assay Kit
701310	TMRE Mitochondrial Membrane Potential Assay Kit

Functional Assays

FEATURED PRODUCT

MitoCheck® Mitochondrial (Tissue) Isolation Kit - Item No. 701010

- Isolate coupled mitochondria from fresh mammalian tissue samples
- Isolated mitochondria can be used with MitoCheck® Complex I-V Activity Assay Kits and Citrate Synthase Activity Assay Kit

ETC Activity Assays

Measure ETC activity or screen compounds for ETC inhibition

Item No.	Product Name
700930	MitoCheck® Complex I Activity Assay Kit
700940	MitoCheck® Complex II Activity Assay Kit
700950	MitoCheck® Complex II/III Activity Assay Kit
700990	MitoCheck® Complex IV Activity Assay Kit
701000	MitoCheck® Complex V Activity Assay Kit

Mitochondrial Protein Activity Assay

Determine citrate synthase activity from isolated mitochondria, tissue, or cell homogenates

Item No.	Product Name
701040	MitoCheck® Citrate Synthase Activity Assay Kit

Mitochondrial Inner Membrane Permeability Assay

Utilizes a calcein/cobalt technique multiplexed with TMRE

Item No.	Product Name
601430	Mitochondrial PT Pore Assay Kit

ROS Generation and Detoxification Assays

Detect ROS and measure the activity of an antioxidant enzyme

Item No.	Product Name
707002	Catalase Assay Kit
600050	Hydrogen Peroxide Cell-Based Assay Kit
601460	Hydrogen Peroxide Ratiometric MaxSpec® Kit
701600	Mitochondrial ROS Detection Assay Kit
601520	ROS Detection Cell-Based Assay Kit (DCFDA)
601290	ROS Detection Cell-Based Assay Kit (DHE)