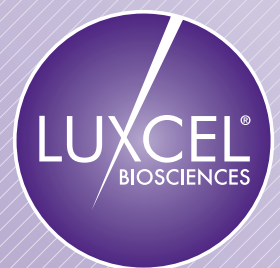




MitoXpress[®]

Providing effective solutions for the measurement of
Mitochondrial Function, Toxicity and Metabolism



Illuminating Discovery[®]

The Ideal Screening Tool for Mitochondrial Analysis

MitoXpress® is a convenient fluorescence-based, high throughput approach to the direct real-time analysis of mitochondrial oxygen consumption. The easy to use assays measure oxygen consumption extracellularly of isolated mitochondria, cell populations, small organisms, tissues and enzymes.

Assay Principle

The assays are based on the ability of O₂ to quench the excited state of the MitoXpress® probe. As the test material respire, O₂ is depleted in the surrounding solution/environment, which is seen as an increase in probe phosphorescence signal. Changes in oxygen consumption, reflecting changes in mitochondrial activity, are seen as changes in MitoXpress® probe signal over time.

The probes are compatible with automated liquid handling systems and are analysed in standard micro-titre plates (96/384) on standard fluorescence plate readers. No dedicated equipment is required.

Simple "Mix and Measure" protocol

- Reconstitute probe
- Add probe to well
- Seal wells with mineral oil
- Measure on standard fluorescence plate reader

Suitable for a wide variety of respiring systems

MitoXpress® assays can be used to analyse a wide variety of respiring or oxygen consuming systems including:

Isolated Mitochondria: Removes the limitations of O₂ electrode based measurement by facilitating simple, high-throughput parallel assessment of mitochondrial function and the screening of NCEs for toxicity. **MitoXpress -Xtra** assay is suitable for isolated mitochondria applications.

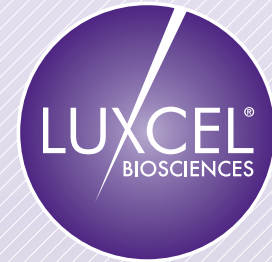
Whole Cells: Allows assessment of both prokaryotic and eukaryotic cells, enabling a diverse range of applications from rapid sterility testing and antibiotic screening to investigations of cellular mitochondrial function and toxicity. **MitoXpress-Xtra-HS** assay is suitable for cell based applications.

The Luxcel MitoXpress® Assays

Product Name	Kit Content	Size*	Cat. No
MitoXpress-Xtra	1 vial of lyophilised oxygen probe and a bottle of mineral oil	~100 assays	MX-100
MitoXpress-Xtra - HS	1 vial of lyophilised oxygen probe and a bottle of high sensitivity mineral oil	~100 assays	MX-200
MitoXpress -1X	1 vial of lyophilised oxygen probe	~100 assays	MX-400

* using recommended probe concentration and assay set up on a 96 well plate

Distributed By:



Illuminating Discovery®

Luxcel BioSciences specialise in the development and manufacture of luminescence based sensors and related biological tests. Currently, we have sensors and tests in the following areas:

- Rapid Microbial tests for pharmaceutical and food safety applications
- High through -put tests for environmental water quality monitoring
- Assays for mitochondrial function, metabolism and toxicity screening

For application notes and product specifications, visit

www.luxcel.com

References

Hynes, J., et al., [2007]. Investigation of drug-induced mitochondrial toxicity using fluorescence-based oxygen-sensitive probes. *Toxicological Sciences*, 92, 186-200.

Will, Y., et al., [2007]. Analysis of mitochondrial function using phosphorescent oxygen-sensitive probes. *Nature Protocols*, 1, 2563-72.

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