MLC-AC0-PE • Controller | MLC-AD240A-PW • Detector

LiCellMo

Live Cell Metabolic Analyzer

Continuous, sampling-free measurement of glucose and lactate in culture medium. Visualize real-time changes in cell metabolism. The PHCbi Live Cell Metabolic Analyzer will open the door to new discoveries.

IN-LINE MEASUREMENT OF GLUCOSE AND LACTATE UP TO 10 DAYS

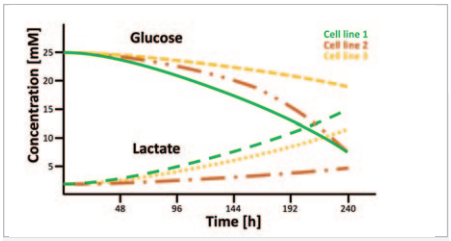
Continuous data of glucose consumption and lactate production without the need for manual sampling.

COMMON CELL CULTURE ENVIRONMENT & SMALL FOOTPRINT

The detector is placed in a conventional CO_2 incubator. Existing culture equipment can be used with any custom gas mix.

USE OF CONVENTIONAL 24 WELL CELL CULTURE PLATES

Five plate adapters are available, suitable for the most common brands of 24 well plates.



Precise metabolic information to follow the exact conditions of cultured cells with high measurement frequency. This allows to optimize growth conditions and to uncover the impact of treatments.

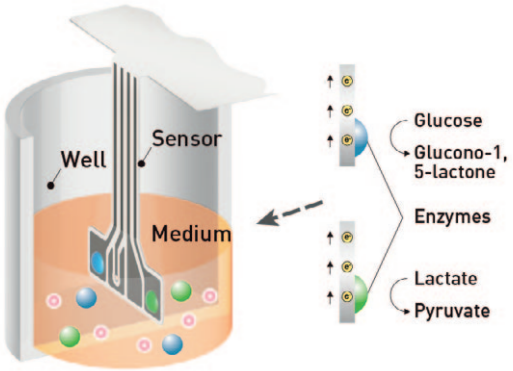
Established and stable cell culture environment keeps experimental set up free from unwanted variables, and provides flexibility for different gas environments such as hypoxia conditions.

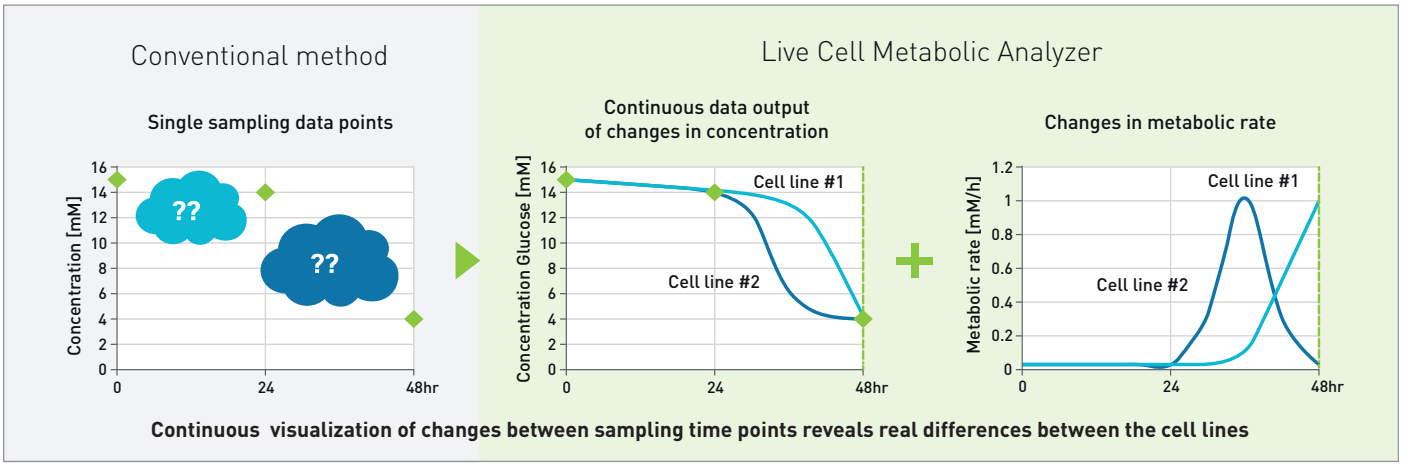
Standard conditions for cell culture in commercially available 24 well plates. Easy handling and no extra expenses for instrument specific dishes.

IN-LINE SENSORS: THE KEY TO CONTINUOUS MEASUREMENTS OF GLUCOSE AND LACTATE

The glycolytic pathway is one of the main cellular metabolic pathways to produce energy. During glycolysis, glucose is taken up into cells and lactate is produced. Conventional analysis of cell metabolism typically involves estimating glucose and lactate concentrations from data points obtained from periodic manual sampling. With its unique high-precision in-line sensors, the PHCbi Live Cell Metabolic Analyzer offers unique advantages:

- real-time monitoring of glucose and lactate concentrations,
- continuous measurement in a 24 well set up,
- no sampling of the culture medium is needed and the same cells can be used for evaluations after measurement.





Measure cells in their usual culture environment.
The simple design of the PHCbi Live Cell Metabolic Analyzer makes it suitable for any laboratory space. Plus, there is no need for specialized cell culture equipment. Common commercial products (culture medium, 24-well plates, calibration liquid, additive reagents) can be used for cell culture.

The sensor module and plate adaptor can be attached to the most common 24-well plates. Once the plate is placed in the pre-installed detector within the CO_2 incubator, real-time measurements can be checked easily using the touch-panel controller. Optional plate adapters for five different commercial 24-well plates are available.

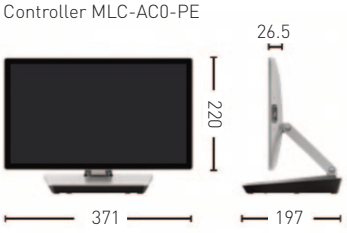
Evaluate glycolytic changes directly.
Changes in the glycolytic pathway can be evaluated directly by measuring the culture medium concentrations of glucose taken up and lactate produced by cells. With the PHCbi Live Cell Metabolic Analyzer, the state of cell metabolism can be visualized as the rate of metabolic change using the consumption rate and production rate based on concentration values. Monitoring the efficiency of conversion from glucose to lactate makes it possible to evaluate not only glycolysis, but also changes in the balance with other cellular metabolic processes, such as oxidative phosphorylation.

Detector	MLC-AD240A-PW
External dimensions (WxDxH)	162 mm x 280 mm x 118 mm
Installation	Inside CO_2 incubator
Controller	**MLC-AC0-PE**
External dimensions (WxDxH)	371 mm x 197 mm x 220 mm
Screen	12.1-inch-wide touch panel display
Extendability	Wired connectivity for up to 4 detectors
Items monitored	Glucose, lactate (simultaneous continuous measurement of both items)
Monitoring duration	Maximum 10 days
Measurement range	Glucose: up to 27 mM (up to 4.9 g/L)
	Lactate: up to 15 mM (up to 1.4 g/L)
Consumables	
LiCellMo Sensor Module	MLC-AS240A-PW (Pack of 3. single use)
Options	
LiCellMo Access port heater	MLC-APH0-PW
LiCellMo Plate adapter (Bottom)	MLC-ABAD2410-PW Common manufacturer
LiCellMo Plate adapter (Top) for 24 well plate	MLC-ATAD2410-PW Corning Costar
	MLC-ATAD2420-PW Corning Falcon
	MLC-ATAD2430-PW Greiner CELLSTAR
	MLC-ATAD2440-PW Thermo NUNC
	MLC-ATAD2450-PW Sumitomo Bakelite

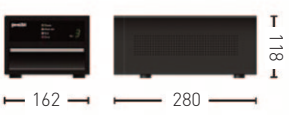
- Appearance and specifications are subject to change without notice.
- For research purposes only.

Dimensions (mm)

Controller MLC-AC0-PE



Detector MLC-AD240A-PW



PHCbi

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https://www.phchd.com/apac/biomedical

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