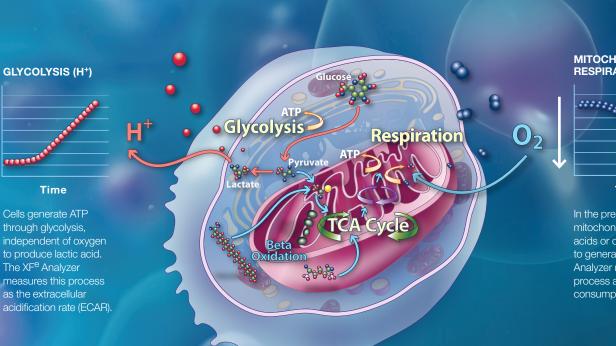


XFe... THE WORLD'S MOST ADVANCED



MITOCHONDRIAL RESPIRATION (O₂)

Time

In the presence of oxygen, mitochondria use fatty acids or other substrates to generate ATP. The XF^e Analyzer measures this process as the oxygen consumption rate (OCR).

With an understanding of cell metabolism - the process by which cells produce and consume energy - scientists are connecting genomic and proteomic data to physiologic traits of cells and generating new insights into obesity, diabetes, cancer, cardiovascular and neurodegenerative diseases.

Seahorse XF^e Extracellular Flux Analyzers and stress test kits are the driving force behind cell metabolism research, providing functional data that enables a greater understanding of cell metabolism.

Pronunciation: ECAR = E-CAR OCR = O-CAR

GLYCOLYSIS (H+)

Time

Cells generate ATP

through glycolysis, independent of oxygen

The XF^e Analyzer

as the extracellular

to produce lactic acid.

measures this process

CELL METABOLISM ANALYZER

The XF^e Analyzer makes cell metabolism assays simple and efficient. Designed in collaboration with cell metabolism experts in academia, pharma, and biotech, XF^e Analyzers provide unsurpassed ease-of-use, throughput, and insight that is far superior to other methods.

XF^e Analyzer 24-well and 96-well format

The XF^e Analyzer simultaneously measures mitochondrial respiration and glycolysis in cells in minutes, using label-free, disposable, solid state sensor cartridges in a 24- or 96-well format. This versatile bench top instrument takes up little room; assays primary cells and tumor cell lines, either adherent or suspension cells, as well as islets and isolated mitochondria. XF^e Analyzers provide the most physiologically relevant *in vitro* measurement for your cell metabolism research.

XF Prep Station

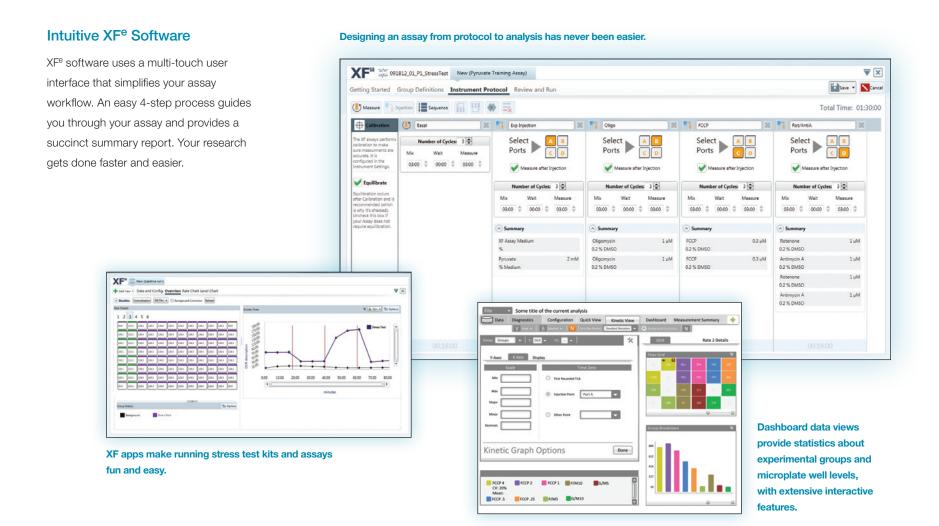
Designed for use with the XF^e Analyzer, the XF Prep Station makes assay preparation fast, easy, and accurate. The XF Prep Station combines a non-CO₂ incubator, with an automated medium changer.

XF Stress Test Kits & Reagents

XF stress test kits and reagents provide a standardized means to perform XF assays quickly and easily. Pre-calibrated, quality assured reagents, and standard assay protocols, ensure reliable and reproducible data; and sample-to-sample, patient-to-patient comparisons reveal a new level of detail in regards to the interplay between the energy-producing-pathways of the cell, and disease.



THE POWER OF REAL-TIME KINETICS





XF^e software takes advantage of today's technological advances to simplify your assay workflow and analysis with multitouch screen capability in 4 easy steps.

- 1. Getting Started
- 2. Group Definitions
- 3. Experimental Protocol
- 4. Review and Run

User-friendly XF assay design...

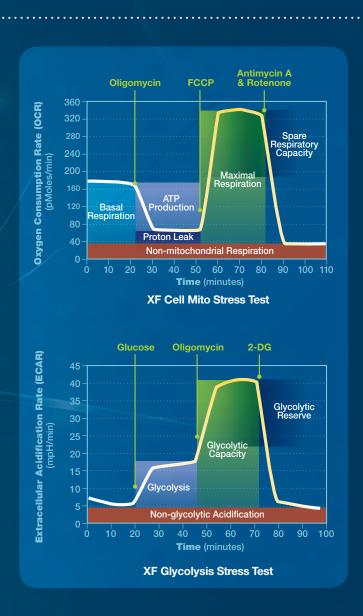
Real-time kinetic stress test data

If you can use an iPhone®, you can use XFe software.



FIRST WE MADE IT POSSIBLE...

Measurements of cell metabolism are essential to understanding cancer, aging, and metabolic, cardiovascular, and neurodegenerative diseases. The XF Cell Mito and XF Glycolysis Stress Test Kits make it easy to measure, in real-time, the key parameters of mitochondrial function and glycolysis in a microplate.



NOW WE'VE MADE IT EASY

A Complete Solution

The XF^e Analyzer, XF stress test kits, reagents, and software apps provide the easiest and most comprehensive assessment of cell metabolism available in a microplate today.

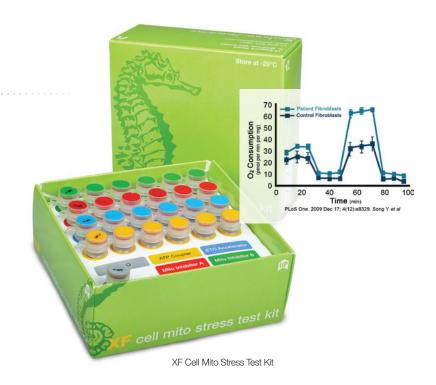
Mitochondrial respiration is the foundation of cellular energy production. The XF Cell Mito Stress Test Kit provides a complete mitochondrial respiration profile that reveals the key parameters of mitochondrial function: basal respiration, ATP turnover, proton leak, maximal respiration, and spare respiratory capacity.

Glycolysis, also a key energy-producing pathway in the cell is involved in a wide array of physiological and pathophysiological processes. The XF Glycolysis Stress Test Kit is a comprehensive, easy-to-use kit that measures the three key parameters of glycolytic flux: glycolysis,

glycolytic capacity, and glycolytic reserve, that reveals critical information not evident in endpoint measurements such as lactate or ATP production alone.

Cells also utilize a variety of substrates to generate ATP through oxidative phosphorylation, including glucose, amino acids, and fatty acids. The XF Palmitate-BSA FAO Reagent enables the measurement of kinetic and cumulative levels of palmitate oxidation in a single, straightforward experiment.

With XF stress test kits and reagents, and more in development, scientists can now quickly and confidently gain a greater understanding of cell metabolism, especially spare respiratory capacity — the capacity of the cell to meet increased demands for energy — and use this information to further their research.









XF Palmitate BSA-FAO Reagent

Coming soon: XF Plasma Membrane Permeabilizer

Bringing a new perspective to CELL METABOLISM RESEARCH

Cancer

Cardiovascular Disease

Cell Physiology

Immunology

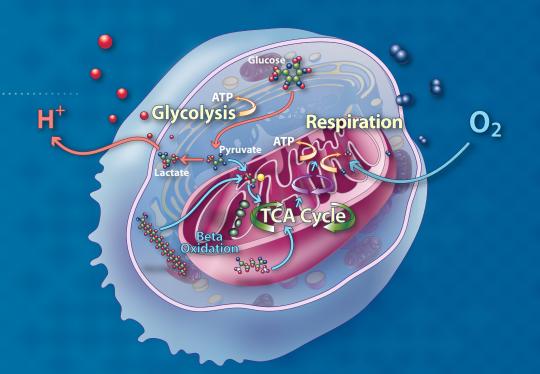
Neurodegeneration

Obesity, Diabetes, and Metabolic Disorders

Stem Cell Biology

Toxicology and Hepatobiology

Transitional Medicine



$$e \rightarrow Qi \rightarrow Ch'i \rightarrow X \rightarrow E = mc^2 \rightarrow e$$



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