

Agilent Seahorse XF Assay Kits and Reagents

Standardized, optimized, live-cell metabolic assays for use with Agilent Seahorse Analyzers



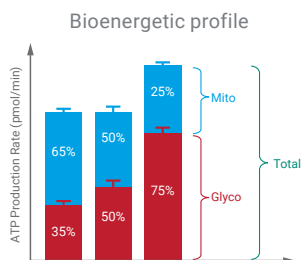
Agilent Seahorse XF Test Kits and Reagents

Agilent offers a wide range of unique high quality Seahorse XF assay kits, reagents, and media for studying cellular function, including metabolism and energetics, and assessing mitochondrial and glycolytic function in real time. These kits are designed to simplify workflow and improve research productivity, enabling generation of higher quality and more consistent data with less effort on your Seahorse XF Analyzer. Together with Agilent's excellent technical support, these kits will greatly enhance your overall experience of performing XF assays.

Key features and benefits include:

- An optimized open-and-go format for simplified protocol and reduced assay complexity.
- Compounds are reconstituted directly in assay medium – eliminating the need for DMSO or other solvents.
- Single-use concept to reduce waste and eliminate need for storage of used compounds.
- Rigorously tested and validated for every lot with cells to deliver consistent and robust results – eliminating the cost associated with failed experiments.

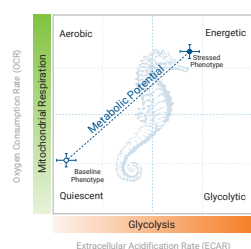
Agilent Seahorse XF Real-Time ATP Rate Assay Kit (Cat No. [103592-100](#) and Cat No. [103591-100](#))



This is the only assay that quantifies the production rates of adenosine triphosphate (ATP) from mitochondrial respiration and glycolysis simultaneously, in real time with live cells. It is a quantitative approach to assess the interplay between cellular functions and energy metabolism in response to gene modification, compound exposure and/or other types of interventions. It also provides more insights into the mechanisms that drive cellular activities such as activation, proliferation and differentiation. For more information, visit Agilent website at <http://www.agilent.com/chem/realtimetrp>

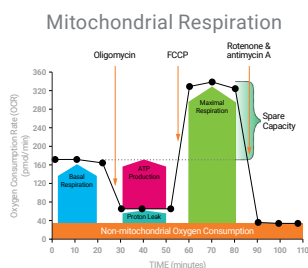
Agilent Seahorse XF Cell Energy Phenotype Test Kit (Cat No. [103325-100](#) and Cat No. [103275-100](#))

Metabolic Phenotype & Potential



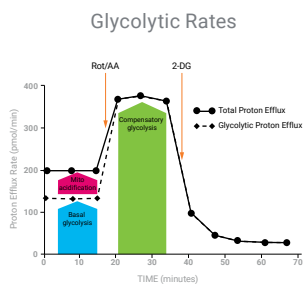
This assay kit rapidly determines the energy phenotype of cells and reveals their metabolic potential, providing a high level view of cellular energy metabolism. It is a useful assay for screening compounds that potentially modulate mitochondrial and/or glycolytic function.

Agilent Seahorse XF Cell Mito Stress Test Kit (Cat No. [103015-100](#) and Cat No. [103010-100](#))



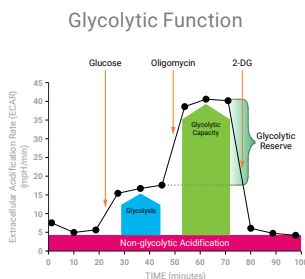
The Gold Standard Assay Kit and an optimized solution for assessing mitochondrial function. In this assay, parameters are obtained including ATP production-coupled respiration, maximal and reserve capacities and non-mitochondrial respiration. The assay provides insight into the mechanism of mitochondrial dysfunction and allows to investigate functional differences among cell types, drug candidates, as well as genetic or biochemical interventions.

Agilent Seahorse XF Glycolytic Rate Assay Kit (Cat No. [103344-100](#) and Cat No. [103346-100](#))



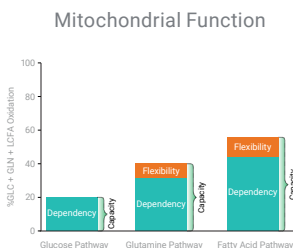
This assay is an optimized complete solution (kit, media, software) that quantifies the rate of glycolytic activity in live cells by accounting for both glycolytic and mitochondrial (CO₂) acidification. The kit delivers robust, informative and precise glycolysis data that enables the study of transient responses and metabolic switches in cellular disease models. This low cost, real-time, functional assay is a superior alternative to the end-point Lactate assay.

Agilent Seahorse XF Glycolysis Stress Test Kit (Cat No. [103020-100](#) and Cat No. [103017-100](#))



A relative test kit of glycolytic function in live cells, this assay measures the capacity of the glycolytic pathway by driving cells toward glycolysis and assesses the ability of study models to increase glycolytic activity to meet metabolic and bioenergetic demands.

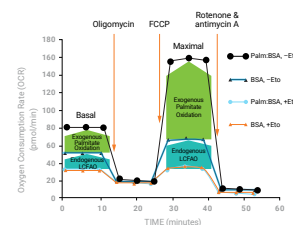
Agilent Seahorse XF Mito Fuel Flex Test Kit (Cat No. [103260-100](#) and Cat No. [103270-100](#))



A method for measuring basal state mitochondrial fuel oxidation in live cells. This assay kit utilizes a set of inhibitors to reveal the cells' ability to switch oxidative pathways in meeting basal energetic demands and provides information regarding the relative contributions of glucose, glutamine and long chain fatty acid oxidation to basal respiration.

Agilent Seahorse XF Palmitate-BSA FAO Substrate (Cat No. [102720-100](#))

XF Fatty Acid Oxidation Profile
Exogenous & Endogenous Fatty Acid Oxidation



A bio-available substrate for in vitro studies of long chain fatty acid (LCFA) oxidation by intact cells. Commonly used with the Cell Mito Stress Test kit. Enable to investigate how LCFA oxidation responds to a genetic manipulation or drug treatment. Best used for assays in which the cells are partially or completely dependent on exogenous LCFAs for maximal respiration and responses to stress.

Agilent Seahorse XF Plasma Membrane Permeabilizer (Cat No. [102504-100](#))



Performing isolated mitochondria type assays without isolating mitochondria! This exclusive reagent permeabilizes plasma membrane of intact cells in culture without damage to mitochondrial membranes, enables experimental control of substrate provision to the mitochondria, and allows for detailed characterization of key components in mitochondrial function, e.g. transporters, enzymes and electron transport chain complexes. This reagent can also be used in other assays involving cell permeabilization, including perforated patch, dye loading and muscle physiology

Product Ordering Information:

Cat No.	Product Description	Unit	Product Content	Compatible Analyzer
103592-100	Seahorse XF Real-Time ATP Rate Assay Kit	EA	6 pouches ¹	XFe96, XF96, XFe24
103325-100	Seahorse XF Cell Energy Phenotype Test Kit	EA	12 pouches ¹	XFe96, XF96, XFe24, XF24
103015-100	Seahorse XF Cell Mito Stress Test Kit	EA	6 pouches ¹	XFe96, XF96, XFe24, XF24
103020-100	Seahorse XF Glycolysis Stress Test Kit	EA	6 pouches ¹	XFe96, XF96, XFe24, XF24
103260-100	Seahorse XF Mito Fuel Flex Test Kit	EA	6 pouches ¹	XFe96, XF96, XFe24, XF24
103344-100	Seahorse XF Glycolytic Rate Assay Kit	EA	6 pouches ¹	XFe96, XF96, XFe24
S7805A	Seahorse XF Glycolytic Rate Assay Starter Pack	EA	1 XF Glycolytic Rate Assay kit 1 30-mL 1M HEPES buffer 1 500-mL XF base medium, phenol red free	XFe96, XF96, XFe24
103591-100	Seahorse XFp Real-Time ATP Rate Assay Kit	EA	6 pouches ²	XFp
103275-100	Seahorse XFp Cell Energy Phenotype Test Kit	EA	12 pouches ²	XFp
103010-100	Seahorse XFp Cell Mito Stress Test Kit	EA	6 pouches ²	XFp
103017-100	Seahorse XFp Glycolysis Stress Test Kit	EA	6 pouches ²	XFp
103270-100	Seahorse XFp Mito Fuel Flex Test Kit	EA	6 pouches ²	XFp
103346-100	Seahorse XFp Glycolytic Rate Assay Kit	EA	6 pouches ²	XFp
S7806A	Seahorse XFp Glycolytic Rate Assay Starter Pack	EA	1 XFp Glycolytic Rate Assay kit. 1 30-mL 1M HEPES buffer 1 500-mL XF base medium, phenol red free	XFp
102720-100	Seahorse XF Palmitate-BSA FAO Substrate	EA	3 x 3 mL Palmitate-BSA 3 x 3 mL BSA controls	All XF Analyzers
102504-100	Seahorse XF Plasma Membrane Permeabilizer	2/pk	1 vial of 25 µL PMP in 10 µM concentration	All XF Analyzers
102353-100	Seahorse XF Base Medium (2 x 1L)	2/pk		All XF Analyzers
103334-100	Seahorse XF Base Medium, 500 mL	EA		All XF Analyzers
103193-100	Seahorse XF Base Medium, 100 mL	EA		All XF Analyzers
103335-100	Seahorse XF Base Medium, without phenol red, 500 mL	EA		All XF Analyzers
103336-100	Seahorse XF RPMI medium, without phenol red, 500 mL	EA		All XF Analyzers
103337-100	Seahorse 1 M HEPES, 30 mL	EA		XFe96, XF96, XFe24, XFp
103575-100	Seahorse XF DMEM Medium, pH 7.4, 500 mL	EA		XFe96, XF96, XFe24, XFp
103576-100	Seahorse XF RPMI Medium, pH 7.4, 500 mL	EA		XFe96, XF96, XFe24, XFp
103577-100	Seahorse XF 1.0 M Glucose Solution, 50 mL	EA		All XF Analyzers
103578-100	Seahorse XF 100 mM Pyruvate Solution, 50 mL	EA		All XF Analyzers
103579-100	Seahorse XF 200 mM Glutamine Solution, 50 mL	EA		All XF Analyzers

1 One XF pouch contains sufficient reagents to run one 24-well or 96-well plate

2 One XFp pouch contains sufficient reagents to run one 8-well mini-plate

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Trusted Answers