

AGILENT SEAHORSE XF GLYCOLYTIC RATE ASSAY

A precise measure of glycolytic rate in live cells, in real time

Glycolysis is how Cells get Work Done

Glycolysis is a critical metabolic pathway used in both normal and disease-associated processes such as T cell activation and cancer cell proliferation. When glycolysis-derived lactate is exported from the cell, protons are also exported, making extracellular acidification rate a convenient indicator of glycolysis. Agilent Seahorse XF Technology enables the real-time measurement of this proton efflux, enabling researchers to detect transient responses and metabolic switching not delivered by endpoint lactate analysis.

A New Quantitative Measure of Glycolytic Rate

Bulk acidification is not specific for glycolysis since mitochondrial TCA activity produces CO_2 , which can also acidify the extracellular medium. The Agilent Seahorse XF Glycolytic Rate Assay accurately measures extracellular proton efflux by calculating and subtracting mitochondrial (CO_2) acidification, thus delivering a more robust and specific measure of glycolytic rate.

The Same Information as a Lactate Assay...With More

The XF Glycolytic Rate Assay is validated against and directly correlates to microplate-based lactate efflux assays, providing an interpretable and verifiable measure of glycolysis. However, unlike lactate and other endpoint assays, the XF Glycolytic Rate Assay provides:

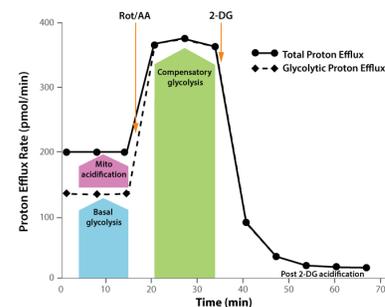
- Rate data that reveal cellular activity in real time, improving detection of subtle changes between conditions
- The ability to test multiple conditions per well, conserving sample and increasing data value
- Mitochondrial respiration rates from the same well, enabling detection of metabolic switching



Agilent Seahorse XF Glycolytic Rate Assay

- Measures and subtracts mitochondrial-related acidification
- Validated against lactate accumulation assays
- Shorter, more physiologically relevant assay than a stress test

Agilent Seahorse XF Glycolytic Rate Assay Profile



Product Information

- The assay must be run on one of the following Agilent Seahorse XF Analyzers: XFe96, XFe24, XFp, XF96. Not compatible with XF24 or XF24-3 Analyzers.
- Phenol Red-free Base Medium and Hepes are required to run the standard assay protocol.
- Kits contain six single-use reagent pouches, each containing one vial of rotenone/antimycin A mix and one vial of 2-deoxyglucose. Each two-vial pouch contains enough reagent for a single assay plate.
- Kits and Hepes are shipped and stored at room temperature. Medium is shipped and stored at 4 °C.



Ordering Information

Catalog number	Description	Compatible with
103344-100	Seahorse XF Glycolytic Rate Assay Kit	XFe96, XFe24, XFe96 Analyzers
103346-100	Seahorse XFp Glycolytic Rate Assay Kit	XFp Analyzer
103335-100	Seahorse XF Base Medium, no Phenol Red (500 mL)	All Analyzers
103336-100	Seahorse XF RPMI Medium, no Phenol Red (500 mL)	All Analyzers
103337-100	Seahorse XF 1M HEPES Buffer (30 mL)	All Analyzers
S7805A	Seahorse XF Glycolytic Rate Assay Starter Pack (1 each of 103344-100, 103335-100, 103337-100)	XFe96, XFe24, XFe96 Analyzers
S7806A	Seahorse XFp Glycolytic Rate Assay Starter Pack (1 each of 103346-100, 103335-100, 103337-100)	XFp Analyzer

For more information, visit:

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