# Agilent Seahorse XF Palmitate Oxidation Stress Test Kit

Validated reagents for measuring palmitate oxidation in live cells



#### Agilent Seahorse XF Palmitate Oxidation Stress Tests

- Examine how interventions applied to the cell (e.g., genetic alteration or drug exposure), specifically affect palmitate oxidation
- Discover how cell phenotype, function or fate can be controlled via manipulation or control of palmitate oxidation activities
- Reliable, functional information without radioactivity
- Ready-to-use reagents for consistent results in every assay

## Measure palmitate acid oxidation in live cells

Agilent Seahorse XF Palmitate Oxidation Stress Test is an advanced assay for measuring palmitate oxidation on Agilent Seahorse XF Analyzers by assessing changes in oxygen consumption rate (OCR). The kit provides validated ready-to-use reagents that include the XF Palmitate-BSA FAO Substrate, etomoxir, oligomycin, FCCP, rotenone/antimycin A, and L-carnitine. Built on the well-recognized Seahorse XF Cell Mito Stress Test, this assay reports easy-to-understand parameters, enabling determination of the intrinsic rate and capacity of a cell to oxidize palmitate in the absence or limitation of other exogenous substrates. With a validated assay protocol, easy-to-use reagents, and a cloud-based analytical tool, you can get started and obtain organized and presentable results quickly.

## Gain insights as to how interventions impact LCFA oxidation

Long-chain fatty acids (LCFAs) are a primary substrate fueling mitochondrial metabolism. Researchers in many areas (e.g., cancer, immunology, stem cell biology) have demonstrated how cells oxidize LCFAs has profound impact on cell fate, function, and fitness. Many of the findings not only provide new biological insights, but also reveal novel approaches to intervention and developing successful therapies. The XF Palmitate Oxidation Stress Test Kit facilitates investigation of how interventions (e.g., genetic manipulations, drug exposures) specifically affect the LCFA oxidation process, and can be a complementary and/or follow-up assay to the Standard XF Long Chain Fatty Acid Oxidation Stress Test.





#### **Product information**

- The Seahorse XF Palmitate Oxidation Stress Tests are supported by XF/XFe96 and XF/XFe24 Analyzers.
- Seahorse XF DMEM or RPMI Medium, pH 7.4 and Seahorse XF supplements (glucose and glutamine) are recommended for optimal results. Ordering information is provided in the table below.
- Each kit contains sufficient materials for three full-plate assays in either 96-well or 24-well format.
- Kit components are stored at room temperature except for item 102720-100 (XF Palmitate-BSA FAO Substrate), which is stored at -20°C.



Seahorse XF Palmitate Oxidation Stress Test profile showing the respiration parameters critical for palmitate demand.

#### **Ordering information**

Catalog Number	Description
103693-100	Seahorse XF Palmitate Oxidation Stress Test Kit: Contains 1 each of the following products: 103672-100, XF Long Chain Fatty Acid Oxidation Stress Test Kit* 102720-100, XF Palmitate-BSA FAO Substrate 103689-100, L-Carnitine
Related products	
103575-100	Seahorse XF DMEM Medium, pH 7.4, 500 mL
103576-100	Seahorse XF RPMI Medium, pH 7.4, 500 mL
103577-100	Seahorse XF 1.0 M Glucose Solution, 50 mL
103579-100	Seahorse XF 200 mM Glutamine Solution, 50 mL

\* p/n 103672-100 is sold separately for performance of the Standard Long Chain Fatty Acid Oxidation Stress Test. For more information, refer to Substrate Oxidation Stress Tests User Guide or contact technical support at cellanalysis.support@agilent.com.

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