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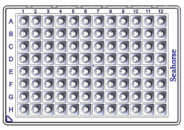
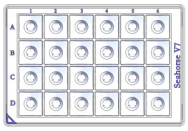
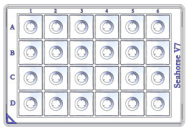
Quick Reference Guide

Agilent Seahorse XF Instruments

	Agilent Seahorse XF Pro Analyzer	Agilent Seahorse XF Flex Analyzer	Agilent Seahorse XFe24 Analyzer	Agilent Seahorse XF HS Mini Analyzer
Plate format				
Microchamber volume	2.28 µL	5.65 µL	5.65 µL	2.28 or 0.71 µL
Controller computer	Windows 10 (64-bit) with touch-screen display, connected to the analyzer	Windows 11 (64 bit) with touch-screen display, connected to the analyzer	Windows 10 (64 bit) with touch-screen display, connected to the analyzer	Integrated full-color, streamlined touch-screen interface with Windows 10 (64 bit), easy to set up and run
Software	Wave Pro Controller software includes preloaded templates for quick experimental design, automatically calculates rates in real time, and provides exclusive cutting-edge data analysis Tools (e.g., multifile analysis, dose-response curves, Z'), advanced template import feature and dose-response experiment setup	Wave Flex Controller software includes preloaded templates for quick experimental design, automatically calculates rates in real time, and provides exclusive cutting-edge data analysis Tools (e.g., automated data QC, multifile analysis), advanced template import feature, and dose-response experiment setup	Wave Controller software includes preloaded templates for quick experimental design, automatically calculates rates in real time, and provides basic tools for data interpretation as well as export options	Integrated software guides setup for standard assays, automatically calculates rates in real time, and provides simple file transfer for data analysis
Best for	– Phenotypic screening – Testing many conditions at once – Dose-response studies	– 3D models (tissue, organoids, small model organisms, etc.) – Differentiated cells	– Islets – Small model organisms	– Quantity-limited primary cells – Low-respiring cell types – T cell subsets
General instrument performance	– Highest-throughput analyzer – Experimental flexibility – Tested for hypoxia – Automation enabled – Advanced thermal control to reduce edge effect when used with XF Pro M plates	– Advanced thermal control to improve intra-plate consistency – Tested for hypoxia	– Tested for hypoxia	– Pair-wise comparison
	– Support for assay temperatures of 16 to 42 °C (8 to 20 °C above ambient temperature)	– Support for assay temperatures of 16 to 42 °C (8 to 20 °C above ambient temperature)	– Support for assay temperatures of 16 to 42 °C (12 to 20 °C above ambient temperature)	–
Measurement performance	– High Sensitivity – Verified performance range (OCR of 13 to 350 pmol/min, PER of 50 to 950 pmol/min) – Tight error in low ranges down to OCR of 13 pmol/min	– High sensitivity – Verified performance range (OCR of 30 to 1050 pmol/min, PER of 100 to 2500 pmol/min) – Tight error in low range down to OCR of 30 pmol/min	– Good sensitivity – Tight error in ranges down to approximate OCR of 40 pmol/min	– Highest Sensitivity – Tight error in low ranges down to OCR of 7 pmol/min when combined with HS Miniplate
	– Test up to 80 groups per plate (maximum for screening at n = 1)	– Test up to seven groups (n = 3)	– Test up to six groups (n = 3)	– Recommended up to two groups (n = 3)

	Agilent Seahorse XF Pro Analyzer	Agilent Seahorse XF Flex Analyzer	Agilent Seahorse XFe24 Analyzer	Agilent Seahorse XF HS Mini Analyzer
Other features	– Quality Control Assurance – Developed under ISO 9001 certified compliant process – IQ and AIQ certified instrument performance – Automated data QC	– Quality control assurance – Developed under ISO 9001 certified compliant process – Automated data QC	–	– Developed under ISO 9001 certified compliant process – Automated data QC
	– Least expensive cost/well	–	–	–
	– Suitable for spheroids	– Wide signal range – Large surface area suitable for a wide range of study models	– Large surface area suitable for large study models (islets)	– Suitable for use with limited biomaterial
	– Compatible with cutting edge XF T cell metabolic profiling and XF Mito Tox assays and analysis	– Compatible with cultured cells, many tissue types, organoids, etc.	–	– Compatible with T cell metabolic profiling assays and analysis
Compatible plate types	– XF Pro M plate – XFe96/XF Pro plate – XFe96/XF Pro PDL plates – XFe96 spheroid plate	– XF24 V7 plate – XF24 V28 plate – XF Flex 3D capture plate – XF Flex 3D organoid plate	– XF24 V7 plate – XF24 V28 plate – XF24 islet capture plate	– XFp miniplate – XF HS miniplate – XFp PDL miniplate – XF HS PDL miniplate

All Agilent Seahorse XF Analyzers features:

- Compatibility with adherent and suspension cells as well as isolated mitochondria and nonmammalian samples
- Ability to perform up to four independent injections per well with automatic mixing
- Automatic calculation of oxygen consumption rate (OCR), proton efflux rate (PER), and extracellular acidification rate (ECAR)
- Simultaneous measurement of OCR and PER/ECAR in the same well
- Sensitivity for small sample sizes
- Ability to quantify mitochondrial respiration, glycolysis, and ATP production rates
- Label-free detection in live cells, in real time
- Windows-compatible desktop software (Wave) for viewing and exporting your Agilent Seahorse XF data
- Cloud-based Seahorse Analytics: accessible, streamlined tools to analyze and interpret your XF data

Note: The Seahorse XFe96 analyzer has been replaced by the new XF Pro analyzer. For more information, please contact Agilent Technical Support at cellanalysis.support@agilent.com or ask your local Product Specialist.

If you are interested in trading in your older Seahorse or other Agilent instrument to receive credit for a new Seahorse Analyzer, please visit the Agilent Services website or ask your local Product Specialist.

www.agilent.com/lifesciences/discoverXF

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RA250311.138

This information is subject to change without notice.

Printed in the USA, March 10, 2025
5991-8215EN

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