

simOa®



SP-X™

Ultrasensitive Imaging and Analysis System

Quanterix®

Ultrasensitive Biomarker Detection

Unleashing the power of next generation Simoa® planar array technology for robust multiplex circulating biomarker detection at the earliest stages of disease progression—even before recognizable symptoms begin

The value of The SP-X™ System

The Quanterix SP-X™ Imaging and Analysis System is a complete benchtop system that offers true multiplex detection at both acute and baseline levels in serum and plasma. Now oncology and immuno-oncology researchers and others who rely on multiplexing capabilities have an easy-to-use platform to help optimize workflows, speed up their research, and ultimately accelerate drug approvals.

State of the art accuracy, sensitivity, precision, and reproducibility with chemiluminescent Simoa planar arrays

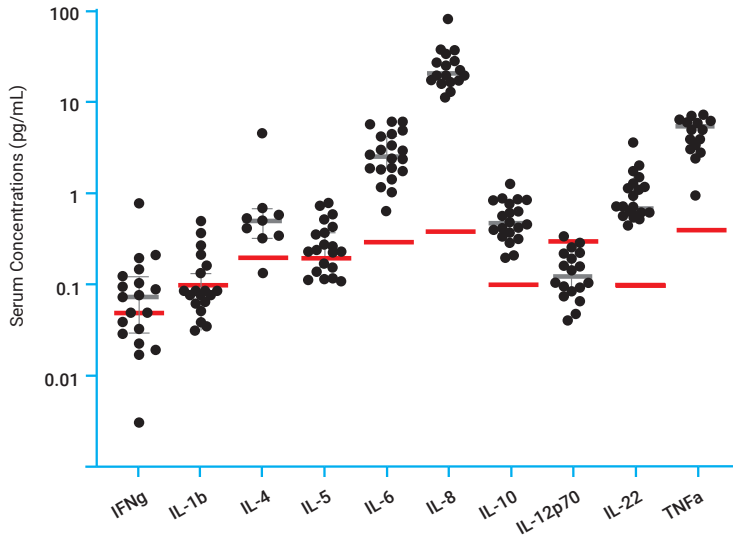


SP-X™ unique capabilities

- Easy to use and flexible data analysis software
- Open platform for custom ultra-sensitive assay development
- Combining Simoa ultra-sensitivity with 10-plex multiplexing
- Compact instrument footprint requiring only 11" (28 cm) of benchtop space
- Onboard high-resolution camera and custom lens for optimal light collection without user adjustments
- Optimized image analysis with proprietary acquisition algorithms and machine learning maximize dynamic range and S/N
- Touch screen tablet interface
- 21CFR Part 11 compatible workflow
- Imaging time in less than 10 minutes
- Low maintenance

benchtop instrument and workflows supporting flexible lab settings

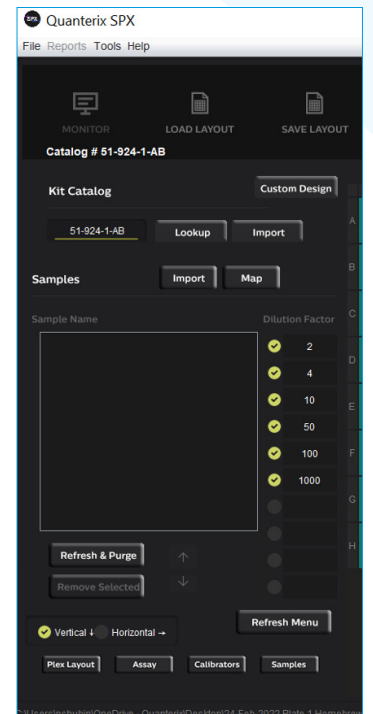
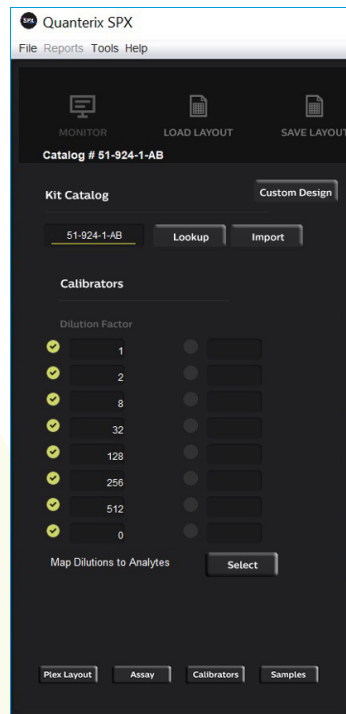
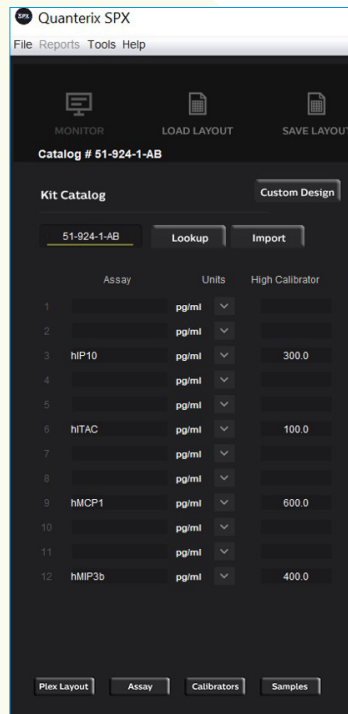
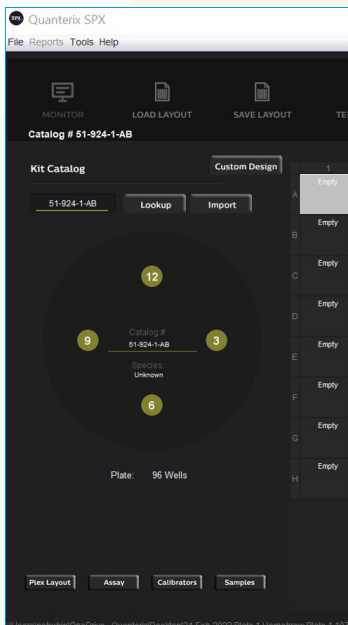
State of the Art Imaging and Data Analysis



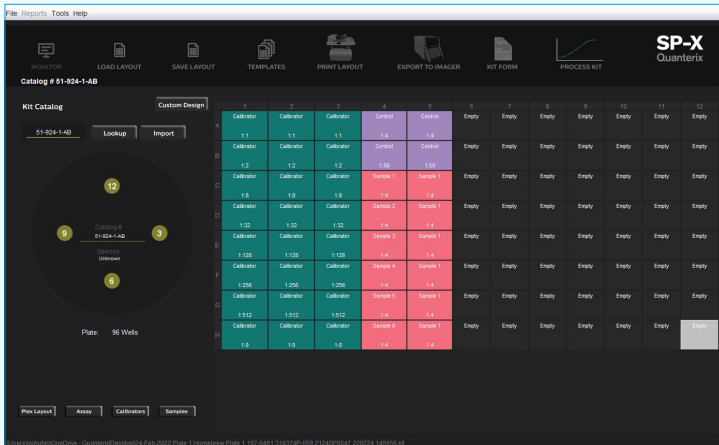
Multiplex measurement of normal healthy baseline levels using the Simoa CorPlex[®] Human Cytokine Panel 1on the SP-X system

SP-X[™] Integrated Data Intelligence Program

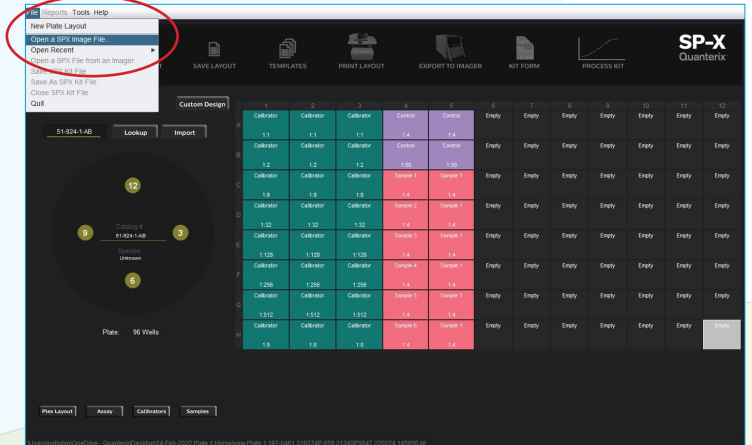
1 Import panel and calibrator/sample dilution setup



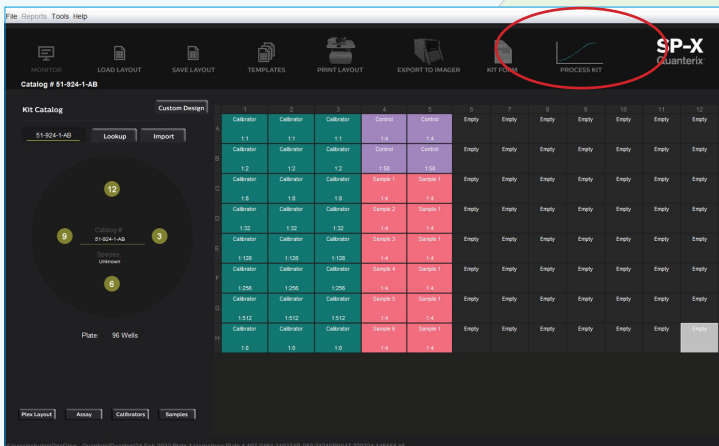
2 Build a plate map or load it from excel file



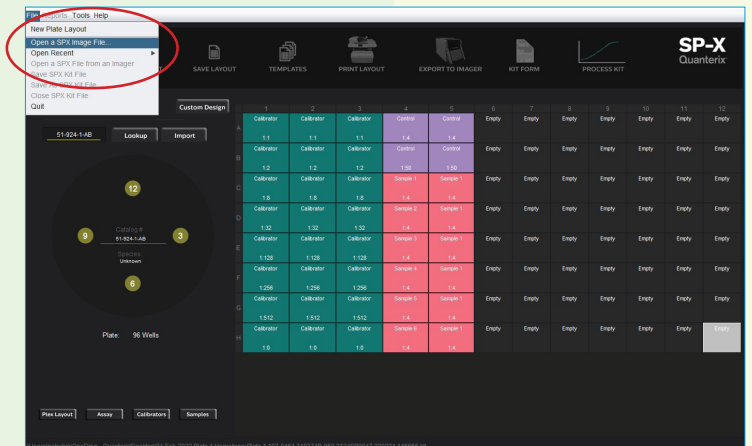
3 Open a .kit file



4 Click "Process Kit"



5 Review data and output report



Simoa SP-X™ workflow: simple, scalable, flexible.



1

Add reagents and samples to assay plate



2

Incubate and shake assay plate



3

Automated Wash of assay plate



4

Load assay plate onto SP-X™ for quick imaging

How the SP-X™ Achieves Ultrasensitivity

The Simoa planar immunoassay technology is a revolutionary new digital biomarker solution, with features that provide researchers an incredibly simple, flexible, robust, and sensitive multiplexing platform.

Proprietary high-precision digital nanofluidic antibody deposition technology

Provides unprecedented surface chemistry optimization, minimizing non-specific binding and resulting in low background noise and excellent assay precision and accuracy.

Unique spot design

Antibodies are deposited into discrete spots in a circular pattern around the perimeter of each round microtiter plate well. Each spot contains the capture antibody for one target analyte. With enough space for 10 unique spots in a single well, up to a 10-plex assay can be performed saving sample volume, time, and cost without sacrificing assay performance characteristics.

Vortex interaction between analyte molecules and capture antibodies

The Simoa planar approach of using capture antibodies spotted on a circular pattern combined with the fluid dynamics of vortex mixing, maximizes sensitivity by driving binding reactions to equilibrium and avoiding depletion regions in the center of the well

Imaging occurs through bottom of translucent wells

The Simoa surface of the planar array plates are manufactured using translucent materials enabling imaging of the array through the bottom of the plate, eliminating the potential for optical signal deformations and for reduced sensitivity of the reading due to the meniscus of the liquid in the well.

Proprietary algorithm to calculate optimal exposure times for each individual plate

Proprietary algorithm allows the SP-X™ Imager to automatically optimize exposure time and number of images to maximize sensitivity and dynamic range for each experiment. number of images to maximize sensitivity and dynamic range for each experiment.

Visit: [quanterix.com/SP-X](https://www.quanterix.com/SP-X) for more information

