

# Product Selection Guide

Accelerate your next  
discovery with Nicoya's  
SPR platforms





At Nicoya, our mission is to improve human life by helping scientists succeed. Many of us have been impacted by diseases such as cancer and Alzheimer's. Globally, there are millions of researchers who are working relentlessly to better understand these diseases, and we are here to help.




Surface plasmon resonance (SPR) is a label-free technique used to detect biomolecular interactions in real time. It is widely adopted in pharmaceutical and life science research as a central tool for quantitative analysis given its versatility and compatibility with a wide range of biomolecules. As a unique technique that allows for determination of both binding affinity and kinetics, it lends itself well to applications such as ligand-receptor and enzyme-substrate interaction studies, drug screening, epitope mapping, protein conformation studies, and label-free immunoassays.

The detailed insights provided by SPR on the strength and stability of key interactions is critical to advancing our knowledge of human diseases and how to treat them. Find out which of our benchtop SPR platforms is right for your lab.

helping  
scientists  
succeed.

# Nicoya SPR platforms

Powerful benchtop solutions for any lab

	OpenSPR	OpenSPR-XT	Alto
Overview			
System	 <p>Obtain publication-quality binding kinetics &amp; affinity data on your benchtop.</p>	 <p>Maximize your productivity with fully automated operation of our benchtop SPR.</p>	 <p>Accelerate drug discovery with high-throughput analysis powered by digital microfluidics.</p>
Consumable	Nanotechnology enabled sensors		Nanotechnology enabled sensor cartridges
Software	OpenSPR Software Control software for operation and data acquisition		Alto Nicosystem Essentials or Pro Cloud-based/local solution with experimental design, control and analysis software
Assay Types	<ul style="list-style-type: none"> <li>Kinetics/affinity</li> <li>Yes/no binding</li> <li>Concentration analysis</li> <li>Screening*</li> <li>Epitope mapping/binning</li> </ul>		<ul style="list-style-type: none"> <li>Kinetics/affinity</li> <li>Yes/no binding</li> <li>Quantitation**</li> <li>Screening**</li> <li>Epitope mapping/binning**</li> </ul>

\* OpenSPR-XT only

\*\* Available only in Nicosystem Pro

# Technical specifications

	OpenSPR	OpenSPR-XT	Alto
Fluidics			
Data Channels	2		16
Referencing	1:1		1:1
Fluidics Technology	Conventional microfluidics		Digital microfluidics
Sample Handling			
Sample Volume	Injection volume + 50 $\mu$ L	200 $\mu$ L per well	2 $\mu$ L per well
Sample Capacity	1 Manual Injection	2x96-well plates	48 240 interactions
Assay Automation	Semi-automated injection process	Autosampler	Automated dilutions Robotics compatible <sup>1</sup>
# of Buffers	Up to 3 Automated switching		Up to 8 Automated switching
Unattended Run Time	-	24 hr	24+ hr
Crude sample	Application dependent		Yes
Performance			
Association Range	$10^3 - 10^7$ 1/M*s		Up to $10^9$ 1/M*s
Dissociation Range	$10^{-5} - 0.1$ 1/s		$10^{-5} - 1.0$ 1/s
Affinity Range	mM-pM		mM-pM
General			
Detection Technology	Localized SPR biosensors		Localized SPR fiber optic biosensors
Temperature Control	Analysis: 4°C – 40°C Sample storage: Chilled from 22°C – 4°C <sup>2</sup>		Analysis: 25°C, 37°C <sup>1</sup> Sample storage: Chilled, 25°C
Dimensions	21H x 46W x 34D cm	36H x 78W x 57.5D cm	43H x 35W x 52D cm
Weight	17 kg (OpenSPR) 21 kg (Autosampler)		23.1 kg
GxP Compatability	No		Please inquire

<sup>1</sup> Please inquire for your specific needs.

<sup>2</sup> OpenSPR-XT only.

Join us on our mission to  
improve human life



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