

iCLUEB!O

# iMSPR

## Instruments

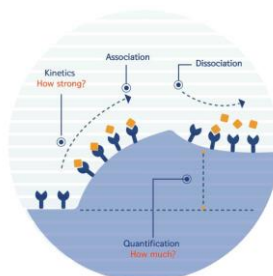


## iMSPR series

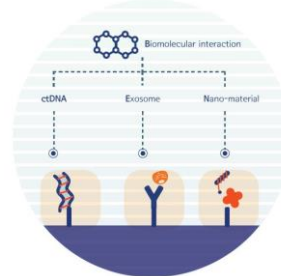
The iMSPR series is a real-time monitoring and analysis system for label-free intermolecular binding based on surface plasmon resonance (SPR) phenomenon. Through the iMSPR series, new biosensors, biomarkers, and receptors can be developed, or new drug candidates can be discovered. In addition, it can evaluate pharmaceutical quality and can be used for medical diagnosis. Meet the iMSPR series of various configurations, from the basic manual model iMSPR-mini to the fully automated advanced model iMSPR-ProX model.



Prism couple type



Rate/Equilibrium



Protein, Peptide,  
DNA, Chemicals, Cells

## iMSPR models

Model name	iMSPR-ProX	iMSPR-Pro	iMSPR-mini	iMSPR-Lab
Cat. No	INPX1000	INPR1000	INMN3000	INLB1000
Channels	2	2	2	2
Channel type	U type (connected)	U type (connected)	I type (individual)	I type (individual)
Concurrent operation	No	No	Yes	Yes
Channel connection	Yes	Yes	No	No
Evaluation SW	Including	Including	Not including	Not including
Degasser	Including	Including	Not including	Not including
High-throughput	Yes	No	No	No
sample to answer	Yes	No	No	No
Incident angle range	10	10	6	40
Incident angle change	No	No	No	Yes
Applications	Drug Screening Concentration/affinity Kinetics	Yes/No Affinity Kinetics	Yes/No Affinity Sensor development	Sensor development Gas sensing Film/solvent
Recommended customers	Common facility for research Pharmaceutical company	Personal lab of university/ Research center	Personal lab of university/ Research center	Personal lab of university/ Research center



ProX

iMSPR-ProX model is a fully automatic SPR system with auto sampler. This device is not simply equipped with an autosampler, but if you prepare a sample to be analyzed in the autosampler, the device also derives kinetic evaluation results.

**This is a true sample-to-answer system.**

ProX can install two 96-well plates at a time, enabling large-capacity screening of candidate drugs, which is the initial stage of new drug development.

Now you can dedicate your analysis to the fully automated ProX and spend your time doing more important things that are more important to you.

Including	iMSPR-ProX main system (1ea), Autosampler (1ea), 48 vials rack (1ea), 2 channels U-type Fluidics module (1ea), Prism holder (1ea), Detach tool (1ea), PC (1ea), Tracedrawer SW (1cp) Flat tweezer (1ea), Matching oil (3ml), USB cable (1ea) Sensor chip storage kit (1ea)
Warranty	2 years

iMSPR-ProX main system



SPR type	Angular interrogation, Prism coupling
Channels/ Channel volume	Channel 1: Ligand channel, Channel 2: Reference channel Channel 2-1 (Connected mode), 500 nl
Light source	770 nm LED
Detector	2D CMOS image sensor, 1/1.2", 2.35MP
Polarizer control	Auto
Incident light range	10°
RIU range	1.31 ~ 1.39
Affinity range	pM ~ mM
Noise level (single channel)	1 RU
General analysis time/sample	2~15 min
Main application	Yes/No binding, Rate on/off constants / Equilibrium constant Drug screening (discovery), Pharmaceutical QC
Analytes	Proteins, DNA/RNA, Peptides, Small compounds, Polysaccharides, Lipids, Viruses, Cells
Size	360 x 466 x 262 (mm), 18kg
Power	AC100-240V
Materials	Aluminum (more 90%), PEEK

Pump type	Peristaltic
Pump channel No.	1
Operation tubing	3 stop- pharmed tubing, ID: 0.25 mm
Flow rate range	1~100 ul/min
Selection valve type	Solenoid
Degasser volume	100 ul

Autosample



Capacity	48 vials x 2 96 well plate x2
Pump type, volume	Syringe, 500 ul
Injection valve, loop volume	6 ports - 2 ways, 200 ul (option 100, 1000 ul)
Minimum volume of sample	50 ul
Prime, cleaning type	Auto
Sample loading type	Air gap mode
Temp. range	4 ~ 40°
Power	100-240V
Communication	RS232
Size	300 x 575 x 360 (mm), 21kg
Vials	t-LABs; 9-425 2mL screw thread Autosampler glass Vial t-LABs; screw cap with 9mm PTFE/Silicone septa Scilab; 2mL snap top glass Vial Scilab; snap-top PTFE/Sil 11mm septa Wheaton; Snap-/Crimp-Top pp Vial, 0.5~1 mL

PC

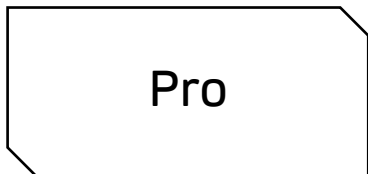


CPU	i5
RAM	16G
Operation	Window 10
Power	AC100~240V



Pump, bubble eliminator, fluidic module, valve, injector, and SPR sensor are all included in one system to improve user convenience and obtain more precise and reproducible data.

Now, according to the program experiment guide provided by icluebio, You can sequentially initialize the experiment, check that the sensor chip is properly installed, and perform interval calibration. After setting the ligand molecule immobilization step and the sequence of the analyte binding experiment, all you need to do is insert the sample into the sample inlet according to the instructions of the program guide. The acquired data can be easily evaluated through the built-in velocity/equilibrium constant analysis program.



Now perform more precise and reproducible binding analysis with the automated iMSPR-Pro.

Including	iMSPR-Pro main system (1ea), 2 channels U-type Fluidics module (1ea), Prism holder (1ea), Detach tool (1ea), PC (1ea), Tracedrawer SW (1cp) Flat tweezer (1ea), Matching oil (3ml), USB cable (1ea)
Warranty	1 years

iMSPR-Pro main system	
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SPR type	Angular interrogation, Prism coupling
Channels/ Channel volume	Channel 1: Ligand channel, Channel 2: Reference channel Channel 2-1 (Connected mode), 500 nl
Light source	770 nm LED
Detector	2D CMOS image sensor, 1/1.2", 2.35MP
Polarizer control	Auto
Incident light range	10°
RIU range	1.31 ~ 1.39
Affinity range	pM ~ mM
Noise level (single channel)	1 RU
General analysis time/sample	2~15 min
Main application	Yes/No binding, Rate on/off constants / Equilibrium constant Drug screening (discovery), Pharmaceutical QC
Analytes	Proteins, DNA/RNA, Peptides, Small compounds, Polysaccharides, Lipids, Viruses, Cells
Size	360 x 466 x 262 (mm), 18kg
Power	AC100-240V
Materials	Aluminum (more 90%), PEEK

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Pump type	Peristaltic
Pump channel No.	1
Operation tubing	3 stop- pharmed tubing, ID: 0.25 mm
Flow rate range	1~100 ul/min
Sample loop volume	200 ul
Sample loading range	20 ~ 200 ul
Selection valve type	Solenoid
Degasser volume	100 ul

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PC



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CPU	i5
RAM	8G
Operation	Window 10
Power	AC100~240V

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icluebio thought about the SPR sensor that can be used flexibly for various applications that researchers, product developers, and medical fields want to implement. It should be as small as possible so that it can be installed anywhere, it should be easy to connect to other systems, and it should be simple so that anyone can use it. This is why the iMSPR-mini was born.

mini is an open platform built to do anything you can imagine. Just connect to your mobile PC via USB and you can use it right away without additional power supply. With mini, you can accurately understand surface plasmon resonance phenomena and use it intuitively.

Unleash the research you want to do with the small but powerful iMSPR-mini.

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Including	iMSPR-mini main system (1ea), Peristaltic pump with 2 channels (1ea), 2 channels I-type Fluidics module (1ea), Prism holder (1ea), Detach tool (1ea), PC (1ea), Flat tweezer (1ea), Matching oil (3ml), USB cable (1ea)
Warranty	1 years

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iMSPR-mini main system




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SPR type	Angular interrogation, Prism coupling
Channels/ Channel volume	2 channels (individual), 500 nl
Light source	770 nm LED
Detector	2D CMOS image sensor, 1/1.8", 1.3 MP
Polarizer control	Manual
Incident light range	6°
RIU range	1.31 ~ 1.37
Affinity range	pM ~ mM
Noise level (single channel)	1 RU
General analysis time/sample	2~15 min
Main application	Yes/No binding, Rate on/off constants / Equilibrium constant (required evaluation SW), Biosensor development, Academic, Diagnostics
Analytes	Proteins, DNA/RNA, Peptides, Small compounds, Polysaccharides, Lipids, Viruses, Cells
Size	306 x 140 x 156 (mm), 4kg
Power	5V USB3.0
Materials	Aluminum (more 90%), PEEK

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Pump



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Pump type	Peristaltic
Pump channel No.	2
Operation tubing	3 stop- pharmed tubing, ID: 0.25 mm
Flow speed	0.1~100 rpm
Flow rate range	1 ~ 100 uL/min
Size	232 x 142 x 149 mm, 2.38 kg
Power	AC 100~240V

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PC



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CPU	i5
RAM	8G
Operation	Window 10
Power	AC100~240V

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SPR sensors have been used in a wide variety of fields over the past few decades, not just in the bio fields. The iMSPR-Lab is a variable incidence-center angle device that can be used in the widest range of applications. It is the only model in the iMSPR series capable of gas sensing and can be used for research on films with high refractive index. Of course, you can basically monitor the binding between biomaterials that iMSPR-mini can do. Conduct your various research using the versatile model iMSPR-Lab.

Including	iMSPR-Lab main system (1ea), Peristaltic pump with 2 channels (1ea), 2 channels I-type Fluidics module (1ea), Prism holder (1ea), Detach tool (1ea), PC (1ea), Flat tweezer (1ea), Matching oil (3ml), USB cable (1ea)
Warranty	1 years

#### iMSPR-Lab 본체 사양



SPR type	Angular interrogation, Prism coupling
Channels/ Channel volume	2 channels (individual), 500 nl
Light source	770 nm LED
Detector	2D CMOS image sensor, 1/1.8", 1.3 MP
Polarizer control	Manual
Incident light range	6°
Incident center angle range	38 ~ 78°
RIU range	1.00 ~ 1.4x
Affinity range	pM ~ mM
Noise level (single channel)	1 RU
Main application	2~15 min
Main application	Yes/No binding, Rate on/off constants / Equilibrium constant (required evaluation SW), Biosensor development, Academic, Diagnostics, Polymer film, Gas sensor
Analytes	Gas, Proteins, DNA/RNA, Peptides, Small compounds, Polysaccharides, Lipids, Viruses, Cells
Power	AC 100~240V
Materials	Aluminum (more 90%), PEEK

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Pump



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Pump type	Peristaltic
Pump channel No.	2
Operation tubing	3 stop- pharmed tubing, ID: 0.25 mm
Flow speed	0.1~100 rpm
Flow rate range	1 ~ 100 uL/min
Size	232 x 142 x 149 mm, 2.38 kg
Power	AC 100~240V

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PC



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CPU	i5
RAM	8G
Operation	Window 10
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**[www.icluebio.com](http://www.icluebio.com)**

icluebio's iMSPR series is manufactured in Korea, and is finally delivered to the customer through precise quality inspection by a specialist. The device experts directly deliver, install free of charge, and perform IQ/OQ right on the spot. After all on-site tests are completed, you will receive training in operation from the education experts in the contents of the handbook.

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