# OpenSPR Consumables





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experts in life science products

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# **OpenSPR and OpenSPT-XT Sensors**

#### Standard Sensors:

Product Name	Description	Quantity	SKU #
Gold Sensors	OpenSPR Gold Sensors offer the ultimate flexibility for custom surface functionalization	Pack of 10	SEN-AU-100-10
Amine Sensors	Amine Sensors are coated for immobilization of tar- gets containing carboxyl groups modified via EDC/ NHS activation.	Pack of 10	SEN-AU-100-10-AMINE
Biotin Sensors	Biotin Sensos are coated for immobilization of strep- tavidin coupled targets.	Pack of 10	SEN-AU-100-10-BIOTIN
Carboxyl Sensors	Carboxyl Sensors are coated for immobilization via EDC/NHS coupling of targets containing primary ami- ne groups.	Pack of 10	SEN-AU-100-10-COOH
Liposome Sensors	Liposome (LIP-1) Sensors contain covalently attached lipophilic groups for direct capture of user prepared liposomes.	Pack of 10	SEN-AU-100-10-LIP1
Hydrophobic Sensors	Hydrophobic (MEM-1) Sensors are coated with a hydrophobic layer of long-chain alkane molecules for immobilization of lipid molecules into a monolayer on the surface for interaction analysis.	Pack of 10	SEN-AU-100-10-MEM1
NTA Sensors	NTA Sensors are coated for immobilization of his-tag- ged targets.	Pack of 10	SEN-AU-100-10-NTA
Protein A Sensor Kit	Protein A Sensor Kit contains all reagents to create a protein A functionalized surface for capture of IgG antibodies.	x10 Carboxyl Sensors x10 Protein A Aliquots Amine Coupling Kit for Protein A (x10 rxns)	SEN-AU-100-10-PROA-KIT
Biotin-Streptavidin Sensor Kit	The Biotin-Streptavidin Sensor Kit enables users to create a streptavidin-coated sensor surface for immo- bilization of biotin-tagged targets.	x10 Biotin Sensors x10 Streptavidin Protein Aliquots	SEN-AU-100-10-STRP-KIT
Thiol Sensors Kit	The Thiol Sensor Kit enables users to create a thi- ol-functional sensor surface for capture of maleimi- de-tagged targets.	x10 Carboxyl Sensors Thiol modification reagents	SEN-AU-100-10-THIOL-KIT
Sensor Starter Pack	The Sensor Starter Pack lets you easily find the right surface chemistry for your application.	x3 Carboxyl Sensors x3 NTA Sensors x3 Biotin-Streptavidin Sensor Kit NTA Reagent Kit (NTA-RK) Amine Coupling Kit (x3 rxns)	SSP-1A
Diagnostic Sensors	Non-functional Sensors for diagnostic and training routines.	Pack of 10	SEN-AU-100-10-DIAG
High Capacity Carboxyl Sensors	High Capacity Carboxyl Sensors are used to covalently immobilize biomolecules containing free primary amine groups. The high capacity carboxyl chemistry enables users more flexibility in experiment optimization while minimizing non-specific binding.	Pack of 10	SEN-AU-100-10-HC-COOH

\*Note - Compatible with both OpenSPR Rev4 and OpenSPR Rev3 instruments

#### High Sensitivity Sensors:

Product Name	Description	Quantity	SKU #
High Sensitivity Biotin Sensors	Biotin Sensors are coated for immobilization of streptavidin coupled targets. High Sensitivity Sensors provide increased signal intensity.	Pack of 8	SEN-HS-8-BIOTIN
High Sensitivity Carboxyl Sensors	Carboxyl Sensors are coated for immobilization via EDC/NHS coupling of targets containing primary amine groups. High Sensitivity Sensors provide increased signal intensity.	Pack of 8	SEN-HS-8-COOH
High Sensitivity NTA Sensors	NTA Sensors are coated for immobilization of his-tagged targets. High Sensitivity Sensors provide increased signal intensity.	Pack of 8	SEN-HS-8-NTA
High Sensitivty Biotin-Streptavidin Sensors Kit	The Biotin-Streptavidin Sensor Kit enables users to create a streptavidin-coated sensor surface for immoblization of biotin-tagged targets. High Sensi- tivity Sensors provide increased signal intensity.	x8 HS Biotin Sensors x8 Streptavidin Protein Aliquots	SEN-HS-8-STRP-KIT
High SensitivityThe Sensor Starter Pack lets you easily find the right surface chemistry for your application.x3 HS - NTA Sensor x3 HS - Biotin-Strep Sensors Kit NTA Reagent Kit (N		x3 HS - Carboxyl Sensors x3 HS - NTA Sensors x3 HS - Biotin-Streptavidin Sensors Kit NTA Reagent Kit (NTA-RK) Amine Coupling Kit (x3 rxns)	SSP-HS-1A

\*Note - Compatible with only OpenSPR Rev4 instruments





## Immobilization/Coupling Kits and Reagents

Product Name	Description	Quantity	SKU #
Amine Coupling Kit Protein Immobilization	Kit includes all reagents for amine coupling of pro- teins to a Carboxyl or Amine Sensor (10x reactions).	EDC and NHS (powder) Activation buffer (4 mL) Blocking solution (2 mL)	AMINE-10
Amine Coupling Kit Small Molecule Immobilization	Kit includes all reagents for amine coupling of small molecules to a Carboxyl or Amine Sensor (10x reactions).	EDC and NHS (powder) Activation buffer (2 mL) Immobilization buffer (2 mL) Blocking solution (2 mL)	AMINESM-10
Immobilization Buffer 10 mM Acetate (pH 4.0)	Ligand immobilization buffer for Carboxyl Sensors.	50 mL	IMB-4.0
Immobilization Buffer 10 mM Acetate (pH 4.5)	Ligand immobilization buffer for Carboxyl Sensors.	50 mL	IMB-4.5
Immobilization Buffer 10 mM Acetate (pH 5.0)	Ligand immobilization buffer for Carboxyl Sensors.	50 mL	IMB-5.0
Immobilization Buffer 10 mM Acetate (pH 5.5)	Ligand immobilization buffer for Carboxyl Sensors.	50 mL	IMB-5.5
Immobilization Buffer Optimization Kit	This optimization kit contains 20 mL of each 10 mM acetate buffer at pH 4.0, 4.5, 5.0 and 5.5 for optimization of ligand immobilization with Carboxyl Sensors.	20 mL of each: - 10 mM Acetate (pH 4.0) - 10 mM Acetate (pH 4.5) - 10 mM Acetate (pH 5.0) - 10 mM Acetate (pH 5.5)	IMB-OPT
Liposome Reagent Kit	Kit includes all necessary reagents to immobilize and remove liposome-based ligands on and off Liposome (LIP-1) Sensors.	CHAPS (powder, x1 tube)	LIP-RK
Hydrophobic Reagent Kit	Kit includes all reagents needed to prepare and remove hydrophobic molecules from Nicoya's Hydrophobic (MEM-1) Sensors.	OGP (powder, x1 tubes)	MEM-RK
NTA Reagent Kit	Kit includes all necessary reagents to immobilize and strip his-tagged ligands on and off NTA Sensors.	NiCl2 (powder, x1 tube) Imidazole (powder, 1x tube) 350 mM EDTA (liquid, x1 20 mL bottle)	NTA-RK
Carboxyl Reagent Kit	Kit contains the necessary reagents to covalently couple protein or antibody samples to the surface of OpenSPR Sensors containing Carboxyl or Amine functionalization (10x reactions).	x3 7.7mg EDC x3 4.6mg NHS 3 mL 10mM HCl 3 mL 1M Ethanolamine (pH 8.5)	COOH-RK-10
Carboxyl Optimization Kit	Kit contains reagents to optimize the covalent cou- pling of protein or antibody samples to the surface of OpenSPR Sensors containing Carboxyl or Amine functionalization. Reagents include Conditioning Solution, EDC/NHS to activate the carboxyl groups, a panel of Sodium Acetate buffers to optimize ligand pre-concentration to the surface, and a Blocking Solution to deactivate unreacted carboxyl groups (10x reactions).	x3 7.7mg EDC x3 4.6mg NHS 3 mL 10mM HCl 3 mL 1M Ethanolamine (pH 8.5) 2 mL each 10mM Sodium Acetate (pH 4.0, 4.5, 5.0, 5.5)	COOH-OPT-RK-10

## **Regeneration Solutions**

Product Name	Description	Quantity	SKU #
Regeneration Buffer MgCl2 4 M	Regeneration buffer used to disrupt intermediate to strong ionic interactions between the analyte and ligand.	100 mL	MGCL-100
Regeneration Buffer NaCl 5 M	Regeneration buffer used to disrupt electrostatic interactions between the analyte and ligand.	100 mL	NACL-100
Regeneration Buffer NaOH 0.2 M	Basic regeneration buffer used to disrupt interactions between the analyte and ligand.	100 mL	NAOH-100
Regeneration Buffer SDS 0.5%	Ionic detergent regeneration buffer used to disrupt hydrophobic interactions between the analyte and ligand.	100 mL	SDS-100
10 mM Glycine-HCl (pH 1.5)	10 mM Glycine-HCl is an acidic regeneration buffer used to disrupt interactions between the analyte and ligand.	100 mL	REG-1.5
10 mM Glycine-HCl (pH 2.0)	10 mM Glycine-HCl is an acidic regeneration buffer used to disrupt interactions between the analyte and ligand.	100 mL	REG-2.0
10 mM Glycine-HCl (pH 2.5)	10 mM Glycine-HCl is an acidic regeneration buffer used to disrupt interactions between the analyte and ligand.	100 mL	REG-2.5
10 mM Glycine-HCl (pH 3.0)	10 mM Glycine-HCl is an acidic regeneration buffer used to disrupt interactions between the analyte and ligand.	100 mL	REG-3.0
Regeneration Optimization Kit	The Regeneration Optimization Kit includes a variety of solutions to disrupt interactions between the analyte and ligand.	25 mL of each: - MgCl2 4M - NaOH 0.2M - SDS 0.5% - NaCl 5M - Glycine-HCl, pH 1.5, 2.0, 2.5, 3.0	REGOPT





# **Running Buffers**

Product Name	Description	Quantity	SKU #
PBS pH 7.4	PBS Running Buffer contains 400mL PBS, pH 7.4	400 mL	PBS
PBS-T pH 7.4	PBS Running Buffer contains 400mL PBS, and 0.05% v/v surfactant P20 (Tween 20), pH 7.4	400 mL	PBS-T
HBS pH 7.4	HBS Running Buffer contains 0.01 M HEPES pH 7.4, 0.15 M NaCl, pH 7.4	400 mL	HBS
HBS-EP pH 7.4	HBS-EP Running Buffer contains 0.01 M HEPES pH 7.4, 0.15 M NaCl, 3 mM EDTA and 0.005% v/v sur- factant P20 (Tween 20), pH 7.4	400 mL	HBS-EP
HBS-T pH 7.4	0.01 M HEPES pH 7.4, 0.15 M NaCl and 0.005% v/v surfactant P20 (Tween 20), pH 7.4	400 mL	HBS-T
TRIS pH 7.4	Tris running buffer at pH 7.4	400 mL	TRIS
TRIS-T pH 7.4	Tris running buffer at pH 7.4 with 0.005%, Tween20.	400 mL	TRIS-T

## Buffer Additives and Surface Blockers

Product Name	Description	Quantity	SKU #
Tween20	Tween20 is a non-ionic detergent commonly added to the running buffer in SPR experiments to reduce non-specific adsorption of molecules to tubing, flow cell, and sensor surface.	20 mL	TW20
Bovine Serum Albumin	Sulfhydryl-blocked BSA is a commonly used blocking agent for SPR and comes in powder form.	2 g	BSA-2
PEG Blockers for Gold Sensors	Thiolated polyethylene glycol (PEG), is an effective blocking reagent used to reduce non-specific bin- ding on Gold Sensors. PEG is 2000k in size.	50 mg	PEG2000-50





## Accessories

#### Syringes & Injection Tips

Product Name	Description	Quantity	SKU #
Plastic Luer-lok™ Syringes	Plastic Luer-lok™ Syringes, 1 mL.	Pack of 50	SYR-PL-50
Disposable Blunt-End Injection Tips	Economical blunt tip injection tips.	Pack of 50	TIP-BLUNT-50
Replaceable Needles for glass syringe	Replaceable Needles for glass syringe.	Pack of 6	RN-G-6
Gastight Glass Syringe	250 μL Gastight Glass Syringe.	1	SYR-G

#### Well Plates & Foil Covers (OpenSPR-XT)

Product Name	Description	Quantity	SKU #
96 Well Plates	Untreated flat bottom 96-well plates compatible with OpenSPR-XT autosampler.	Pack of 10 Pack of 100	WP-10 WP-100
Well Plate Foil Covers	Adhesive foil covers to prevent sample evaporati- on in 96-well plates. Compatible with OpenSPR-Xt autosampler.	Pack of 10 Pack of 100	WPF-10 WPF-100

#### Sample Loops

Product Name	Description	Quantity	SKU #
Sample Loop (100 µl)	100 µL PEEK Sample Loop	1	SL-100
Sample Loop (250 µl)	250 μL Sample Loop	1	SL-250
Sample Loop (50 µl)	50 µL Sample Loop	1	SL-50
Sample Loop (500 µl)	500 µL Sample Loop	1	SL-500

#### Bottles

Product Name	Description	Quantity	SKU #
250 mL Glass Buffer Bottle	Square glass buffer bottle (250 mL) compatible with the OpenSPR buffer bottle shelf. Comes with lid and tube fitting.		BTL-SQ-250
500 mL Glass Buffer Bottle	Round glass buffer bottle (500 mL) with lid and tube fitting.	1	BTL-R-500
Fittings and Ferrules Buffer Bottle Lids	Fittings and Ferrules Buffer Bottle Lids.	Pack of 4	FITTING-LID



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### Maintenance

#### Maintenance and Cleaning Kits

Product Name	Description	Quantity	SKU #
Advanced Cleaning Kit	This Advanced Cleaning Kit includes all recom- mended cleaning solutions for post experimental maintenance of your OpenSPR instrument for 3 months of continual use.	25 mL of each: - 0.5% SDS - 0.2 M sodium bicarbonate - 6 M urea - 1% acetic acid - 0.5% sodium hypochlorite	CLN
Maintenance Kit	The OpenSPR Maintenance Kit includes solutions for both Basic and Full Instrument cleaning procedures and is specially formulated for compatibility with OpenSPR.	100 mL of each: - 0.5% SDS - 0.2 M sodium bicarbonate - 0.5% sodium hypochlorite	MNT
Diagnostic Kit	The Diagnostic kit contains supplies required to diagnose issues of OpenSPR.	x10 vials of Glucose, x10 Diagnostic sensors, x50 Plastic Syringes (1 mL) x50 Blunt-end injection tips	DIAG-KIT
Declogging Kit	The Declogging Kit includes the necessary equip- ment to troubleshoot and unclog tubing from the OpenSPR right from your lab bench.	x1 Luer Lock Adapter for fluidic connections x1 Finger Nut x1 Ferrule - cone x1 Plastic Syringe (1 mL)	DECLOG - OpenSPR

#### **OpenSPR R4 Spare Parts**

Product Name	Description	Quantity	SKU #
Replacement Flow Cell Kit	This Replacement Flow Cell Kit includes all recom- mended solutions for replacing the flow cell of your OpenSPR instrument.	x1 Flow cell x1 Flow cell tubing & connectors x1 Hex key thumbscrew	FC-R4-KIT
Cool Light LED	Cool Light LED for OpenSPR R4.	1	LED-COOL
Warm Light LED	Warm Light LED for OpenSPR *Note: Only compatible with 2-Channel OpenSPR or OpenSPR-XT	1	LED-WARM
Spare Parts Kit for OpenSPR R4	The Spare Parts Kit includes all recommended parts for maintaning and repairing your OpenSPR R4.	x1 Flow Cell Kit x1 100 μL Sample Loop x1 Injection Port x1 Cool Light LED x1 Warm Light LED (2-Channel only) x1 Replacement Tubing Kit x10 Ferrules x1 Hex Nut x1 Bulk Head for Injection Port x1 Bulk Head for Waste	SPARE-R4
Replacement Inlet/Outlet Tubing	Replacement set of inlet and outlet tubes for OpenSPR R4.	1	TUBE-INLET
Replacement Tubing Kit	Includes a full set of replacement microfluidic tubing for OpenSPR R4.	1	TUBE-KIT-R4
Replacement Injection Port	Injection port replacement for OpenSPR R3 & R4.	Pack of 2	INJPT

#### OpenSPR-XT Spare Parts

Product Name	Description	Quantity	SKU #
Spare Parts Kit for OpenSPR-XT R4	The Spare Parts Kit includes all recommended parts for maintaning and repairing your OpenSPR-XT R4.	<ul> <li>x1 Flow Cell Kit</li> <li>x1 100 µL Sample Loop</li> <li>x1 Injection Port</li> <li>x1 Cool Light LED</li> <li>x1 Warm Light LED</li> <li>(2-Channel only)</li> <li>x1 Replacement Tubing Kit</li> <li>x10 Ferrules</li> <li>x1 Hex Nut</li> <li>x1 Bulk Head for Injection</li> <li>Port</li> <li>x1 Bulk Head for Waste</li> <li>x1 XT Valve Rotor Seal</li> <li>x1 XT Injection Needle with</li> <li>connections</li> <li>x1 XT Transit Tube with</li> <li>connections</li> <li>x1 XT Syringe</li> <li>x1 XT Syringe Valve</li> </ul>	SPARE-R4-XT
Spare Parts Kit for OpenSPR-XT R3	The Spare Parts Kit includes all recommended parts for maintaning and repairing your OpenSPR-XT R3.	<ul> <li>x1 Pump tube</li> <li>x1 100 µL Sample loop</li> <li>x10 Ferrules - cone</li> <li>x4 Ferrules - flat</li> <li>x1 Injection port</li> <li>x1 Flow cell</li> <li>x1 Set of replacement tubes</li> <li>OpenSPR Rev 3</li> <li>x1 LED light source (Rev 3)</li> <li>x1 Bulk Head</li> <li>x2 Fluidic connectors - finger tightening</li> <li>x1 XT Valve Rotor Seal</li> <li>x1 XT Injection Needle with connections</li> <li>x1 XT Transit Tube with connections</li> <li>x1 XT Syringe</li> <li>x1 XT Syringe Valve</li> </ul>	SPARE-1-XT



## Maintenance

#### OpenSPR R3 Spare Parts

Product Name	Description	Quantity	SKU #
Flow Cell OpenSPR R3	Flow Cell for OpenSPR Rev 3.	Pack of 1 Pack of 5	FC-100-1 FC-100-5
Injection Ports	Injection port replacement for OpenSPR R3 & R4.	Pack of 2	INJPT
LED Light	LED Light Source for OpenSPR R3.	1	LED-BW
Pump Tubing	Replacement peristaltic pump tubing with barbed fittings for OpenSPR R3.	1	PS-T
Replacement Tubing Kit	Includes a full set of replacement microfluidic tubing for OpenSPR R3	1	TUBE-RPL-R3
Spare Parts Kit	The Spare Parts Kit includes all recommended parts for maintaning and repairing your OpenSPR R3.	<ul> <li>Pump tube</li> <li>100 µL Sample loop</li> <li>Ferrules: cone (10 pk)</li> <li>Ferrules: flat (4 pk)</li> <li>Injection port</li> <li>Flow cell</li> <li>Set of replacement tubes</li> <li>LED light source (Rev 3)</li> <li>Bulk Head</li> <li>Fluidic connectors -finger tightening (2 pk)</li> </ul>	SPARE-1

## Training

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Product Name	Description	Quantity	SKU #
Online Remote Training	Two-hour online remote training session with a Customer Success Scientist	-	TRAIN-REMOTE
TraceDrawer Training	One-hour remote TraceDrawer training session with a Customer Success Scientist	-	TRAIN-TD
In Person Training	Contact your Customer Success Scientist for in person training options	-	-





# International Distributors for OpenSPR

Region	Company Name	Contact	Additional Information
Australia & New Zealand	Jomar Life Research	info@JLresearch.com.au +61 3 9764 2566	Website
Austria, Slovenia and Croatia	Prager Elektronik	Thomas Schuster t.schuster@prager-elektronik.at +43 2245 6725	<u>Website</u>
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Region	Company Name	Contact	Additional Information
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