OpenSPR

Publish faster with binding kinetics & affinity data

nicoya

We improve human life by helping scientists succeed.

Contents

About Nicoya

Our Story

A single idea from the human mind can change the world. Nicoya was established in 2015 as an idea from the mind of nanotechnology graduate student, Ryan Denomme. While completing his Masters' research at the University of Waterloo he encountered a recurring problem – researchers don't have access to the cutting-edge technology needed to advance their discoveries. It became his goal to use nanotechnology to help reduce the cost and complexity commonly associated with scientific instruments, making them accessible to every scientist. As CEO, Ryan leads the team at Nicoya and continues to bring his vision to life.

Currently Nicoya is made up of 100+ passionate and talented engineers, scientists, and designers who have extensive experience working at the forefront of nanotechnology, biochemistry, and optical sensors. Located in the heart of Canada's Silicon Valley, Nicoya is proud to call Kitchener-Waterloo its' home base and is globally helping scientists succeed in over 40 countries.

Our Mission

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 (like yourself!) who are working relentlessly to better understand these diseases and we are here to help.

ACCESSIBILITY

We design and build cutting-edge technology that is accessible to every scientist. Our products are affordable, user-friendly, and can be used for a wide variety of applications.

FREEDOM

We give scientists the freedom to focus on the challenges of their research. From workflow automation to comprehensive, ongoing customer support, we make execution easier and faster so you can focus on analyzing data, publishing literature, and making important connections.

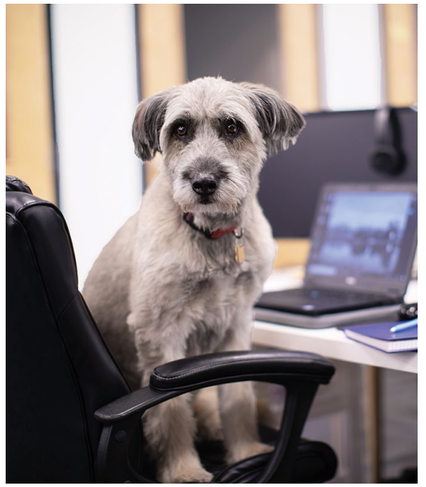
INNOVATION

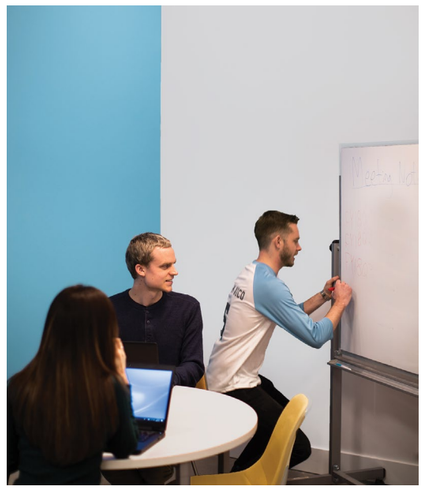
Driven by knowledge and curiosity, our mindset is one of continuous innovation. To remain ahead of the curve and challenge the status quo, we seek honest feedback and transparency from our users to continuously revolutionize our products and offerings.

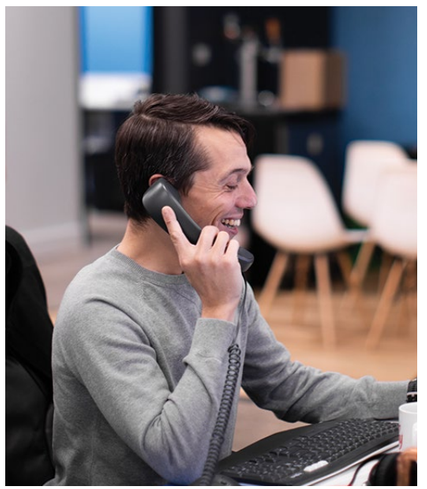
By helping scientists succeed, we enable deeper knowledge of the biological world, leading to scientific breakthroughs that improve human life.

Everything begins with an idea. Ideas can change the world.

helping scientists succeed.







OpenSPR

Publication-quality binding kinetics & affinity data on your benchtop.

Overview

OpenSPR is the world's only benchtop surface plasmon resonance (SPR) instrument. It provides high quality, label-free interaction analysis for a fraction of the cost of existing solutions. Our unique nano-structured sensor surface uses localized SPR (LSPR) to deliver repeatable, highly sensitive kinetic data.

Applications

- Kinetics/affinity characterization
- Competition assays
- Target identification
- Epitope mapping
- Screening
- Yes/No binding
- Concentration

Compatible With

- Proteins
- Lipids
- Carbohydrates
- Antibodies
- Nucleic acids
- Small molecules
- Cells
- Viruses
- Nanoparticles
- & more

Technical Specifications

Performance	
Association Rate (k_{on})	$1x10^3$–$1x10^7$ 1/M*s
Dissociation Rate (k_{off})	0.1–$1x10^{-5}$ 1/s
Affinity Range (K_D)	mM–pM

Hardware Specifications	
# of Channels	2
Flow Rate	5–200 µL/min
Injection	Semi-Automated
Injection Volume	5–100 µL
Autosampler	Optional upgrade to OpenSPR-XT
Temperature Range	4°C-40°C (max 10°C <ambient)
Temperature Precision	+/- 0.25°C
Buffer Switching	3 ports available, automated switching
Instrument Size	46 x 34 x 21 cm
Weight	42 lbs
File Output	CSV, Tracedrawer

Benchtop

Avoid costly & inconvenient core facilities with our affordable benchtop solution

User-friendly

Train anyone in your lab to become an SPR expert with our user-friendly solution

Real-time data

Publish faster with label-free binding kinetics & affinity data

Low-maintenance

Forget about expensive service contracts so you can focus on your research

OpenSPR-XT

Accelerate your research with automated benchtop SPR.

Overview

OpenSPR-XT is built with our cutting-edge and affordable nanotechnology biosensor platform. It has been seamlessly integrated with our robust autosampler system to allow for fully automated, 24/7 operation.

Applications

- Kinetics/affinity characterization
- Competition assays
- Target identification
- Epitope mapping
- Screening
- Yes/No binding
- Concentration

Compatible With

- Proteins
- Lipids
- Carbohydrates
- Antibodies
- Nucleic acids
- Small molecules
- Cells
- Viruses
- Nanoparticles
- & more

Technical Specifications

Performance

Association Rate (k_{on})	$1x10^3$–$1x10^7$ 1/M*s
Dissociation Rate (k_{off})	0.1–$1x10^{-5}$ 1/s
Affinity Range (K_D)	mM–pM

Hardware Specifications

# of Channels	2
Flow Rate	5–200 µL/min
Injection	Automated
Injection Volume	5–100 µL
Sample Capacity	2x 96 well plates, 2/10 mL vials
Sample Temperature	Cooled from 20°C-4°C
Unattended Run Time	24 hours
Temperature Range	4°C-40°C (max 10°C <ambient)
Temperature Precision	+/- 0.25°C
Buffer Switching	3 ports available, automated switching
Instrument Size	78 x 55 x 53 cm
File Output	CSV, Tracedrawer

Benchtop

Avoid costly & inconvenient core facilities with our affordable benchtop solution

Real-time data

Publish faster with label-free binding kinetics & affinity data

Automated

Maximize your productivity with our premade workflows & user-friendly software

Reliable

Get publication-quality data with the highest level of consistency and repeatability

OpenSPR Sensors

Optimize easily with a wide range of affordable sensor chips.

OpenSPR Sensors

Tired of expensive surface plasmon resonance sensor chips? Our nanotechnology enabled sensors are manufactured to the highest quality to ensure consistent and repeatable measurements, at half of the price of traditional sensors. We achieve less than 2% CV on all critical optical properties. Our sensors are stable in a variety of solvents, buffers and reagents. With high-quality and affordable OpenSPR Sensors, you have the freedom to run more experiments.

*Compatible with OpenSPR and OpenSPR-XT instruments

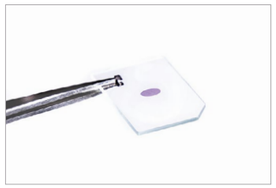
Surface Chemistries

OpenSPR sensors are available in a variety of functional surface chemistries to reduce the time and effort needed for immobilization, while ensuring high repeatability. Non-functionalized gold sensors are also available for custom surface functionalization.

High Sensitivity Sensors

High Sensitivity Sensors provide increased sensitivity for your toughest SPR applications. The increased localized sensitivity is particularly advantageous for small molecule analysis, and can also be used to enhance the signals of other larger biomolecules.

Standard Sensor Chip



High Sensitivity Sensor Chip

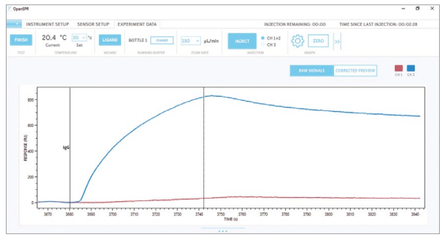
Sensor Chip	Coated for immobilization of:
Carboxyl	any amine group using EDC/NHS coupling
NTA	histidine tagged targets
Streptavidin	biotin tagged targets
Biotin	streptavidin coupled targets
GST	GST tagged targets
Protein A	IgG based antibodies
Amine	any carboxyl group using EDC/NHS coupling
Liposome Binding (LIP)	liposomes/membrane proteins
Hydrophobic (MEM)	lipid monolayer
Thiol	thiol or maleimide tagged targets
Gold	non-functionalized and perfect for custom surface chemistry development and targets with thiol groups

SPR Analysis Software

Enhance data acquisition with intuitive, user-friendly & robust software.

OpenSPR Software Suite

The OpenSPR software is for exclusive use with OpenSPR instruments. Designed custom for researchers, it allows for control of the instrument and fast real-time data acquisition. The OpenSPR software is included with the purchase of an OpenSPR Starter Kit.



OpenSPR Software

Features

- Intuitive and easy-to-use
- Guided setup, cleaning and shutdown procedures
- Ligand immobilization wizards
- Full test automation (OpenSPR-XT)
- Ability to create, save and load test templates (OpenSPR-XT)
- CSV export for flexible data processing options
- TraceDrawer export for quick and easy analysis

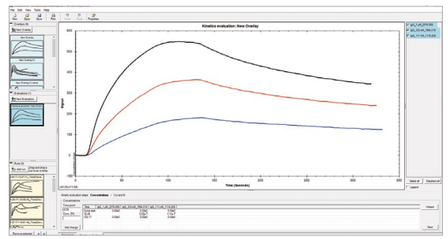
Minimum Computer Requirements

Communication: USB 2.0 or 3.0
Platform: Windows 10, 64-bit.
Memory: 4 GB RAM
CPU: Dual Core

TraceDrawer Software

TraceDrawer is the ultimate solution for real-time interaction data handling and integrates seamlessly with data produced from the OpenSPR. It can also be used with data generated from any real-time analysis tool once the data is in the appropriate format (.txt or .csv file formats).

TraceDrawer can be used to post-process data (subtract references, cut, move, combine data from several experiments), evaluate kinetic constants (k_{on} and k_{off}), evaluate affinity constants and EC50, create reports and produce publishable figures. For kinetic analysis, several different models are available. TraceDrawer is a useful tool for organizing, processing and presenting your data.



Kinetic Analysis Models

- 1:1, with diffusion correction and two-state analysis options
- 1:2
- Bivalent interactions
- Affinity/EC50
- Kinetics competition

OpenSPR for Academia

Publish faster with binding kinetics & affinity data from your benchtop.

Overview

With innovative nanotechnology, we have greatly reduced the cost of having access to crucial binding kinetics data and SPR technology. Having OpenSPR in your own lab eliminates the expensive costs and inconvenient travelling associated with using a shared instrument in a core facility. OpenSPR has helped researchers publish in high-impact journals and is currently being used by over 600 innovative researchers worldwide.

> "OpenSPR offers the perfect combination of performance and affordability, which will accelerate our research while saving our lab money."
>
> **Dr. Thorsten Dieckmann**
> Associate Professor & Associate Chair of Chemistry, University of Waterloo

Trusted by 600+ Innovative Researchers Worldwide

Stanford University
Berkeley University of California
Johns Hopkins University
UC San Diego
Vanderbilt University
Cornell University
UCLA
University of Waterloo
University of Toronto
Duke University
Columbia University
The Scripps Research Institute
Yale
University of Michigan

OpenSPR for Education

Novartis, Pfizer & Merck rely on SPR. Keep your students ahead.

Why Teach SPR?

SPR is the gold standard technique for measuring binding kinetics in both industry and academia. From discovering new drugs to gaining a better understanding of diseases, SPR is used by thousands of biotechnology companies and every pharmaceutical company in the world. Students who graduate with experience using cutting-edge techniques like SPR will be best prepared to start their career in industry or continue to do research in the academic world.

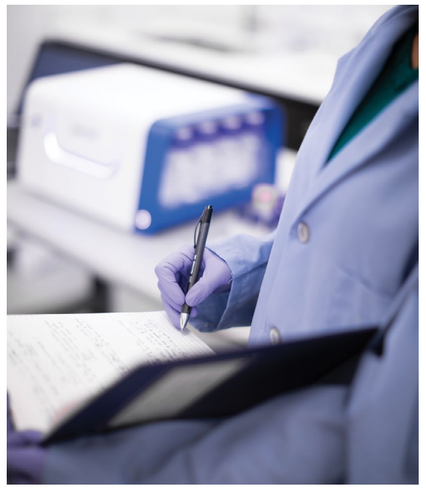
Benefits

For Students

- **Hands-on Experience**
- **Increase Employability**

For Instructors

- **Low-maintenance**
- **Predesigned Labs**



"The team at Nicoya has been very helpful, promptly answering any questions, helping me analyze data, troubleshooting issues, and helping me learn the ins and outs of how the instruments work. The initial training was very fast and simple."

Ember Tota
Chemistry Graduate Student,
University of California San Diego

OpenSPR for Biotechnology

Accelerate your research with high-quality binding kinetics data for a wide range of applications.

Overview

SPR is a highly valued technique used in the biotechnology industry for drug screening, drug production, lead optimization, quality control, and much more. Our unique nano-structured sensor surface allows you to obtain high-quality binding kinetics and affinity data for a wide variety of applications. With OpenSPR's ease-of-use, you can get started on your experiments in a matter of hours.

Due to it's versatile applicability, the OpenSPR can be found in companies of all sizes. In smaller companies, the OpenSPR allows researchers to finish off their full experimental workflows at a low cost. In larger companies, the OpenSPR is easily integrated alongside their other assays.

OpenSPR is ideal for:

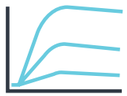
- Lead optimization
- Quality control
- Drug discovery
- Validation
- Feasibility

Benchtop

Save valuable lab space with our affordable benchtop solution

User-Friendly

Train anyone in your lab to become an SPR expert with our user-friendly solution.



Real-Time Data

Shorten your experimental timelines with real-time binding kinetics and affinity data

Low-Maintenance

Minimize downtime on your experiments and save on operational costs

> "We spent many hours trying to run our protein-protein interaction on the Biacore with no success. After running the same experiment on the OpenSPR, we immediately got the data we needed."
>
> **Dr. Ning**
> CEO, Kyinno Biotechnology

Publications

The world's most innovative researchers are publishing faster with OpenSPR. Join us on our mission to improve human lives.

PUBLICATION LIST

Luteolin Inhibits Musashi1 binding to RNA and disrupts cancer phenotypes in glioblastoma cells.
Gupta, Y. K., Hart, M. J., Hernandez, G., Hubert, C. G., Ivanov, D. N., Kaundal, S., Li, G., Penalva, L. O. F., Qiao, M., Velasco, M. X., Villarreal, J., Wang, Z., and Yi, C.
RNA Biology. (Nov 2018)

A truncated RHAMM protein for discovering novel therapeutic peptides
Hauser-Kawaguchi, A., Luyt, L., Milne, M., Peart, T., Tolg, C., and Turley, E.
Bioorganic & Medicinal Chemistry. (Oct 2018)

Ligand size and conformation affect the behavior of nanoparticles coated with in vitro and in vivo protein corona.
Gao, H., He, Q., Ruan, S., Yu, W., Wu, T., and Zhang, H.
ACS Applied Materials & Interfaces. (Feb 2018)

PDGFRß-specific affibody-directed delivery of a photosensitizer, IR700, is efficient for vascular-targeted photodynamic therapy of colorectal cancer.
Fan, Q., Lu, X., Shi, Q., Tao, Z., Wan, L., Wei, D., Yang, H.
Drug Delivery. (Nov 2017)

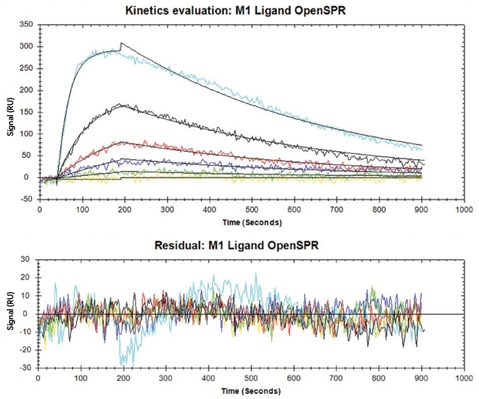
Docosahexaenoic acid lowers cardiac mitochondrial enzyme activity by replacing linoleic acid in the phospholipidome.
Sullivan, E. M., Pennington, E. R., Sparagna, G. C., Torres, M. J., Neufer, P. D., Harris, M., Anderson, E. J., Tonya N. Zeczycki, T. N., Brown, D. A., Shaikh, S. R.
Journal of Biological Chemistry. (Nov 2017)

Targeted Delivery to Tumor-associated Pericytes via an Affibody with High Affinity for PDGFRß Enhances the in vivo Antitumor Effects of Human TRAIL.
Tao, Z., Yang, H., Shi, Q., Fan, Q., Wan, L. and Lu, X.
Theranostics (Jun 2017)

Receptor-Based Peptides for Inhibition of Leukotoxin Activity.
Krueger, E., Hayes, S., Chang, E. H., Yutuc, S., and Brown, A. C.
American Chemical Society. (Feb 2017)

**For a full list of OpenSPR publications, visit nicoyalife.com/publications*

Applications

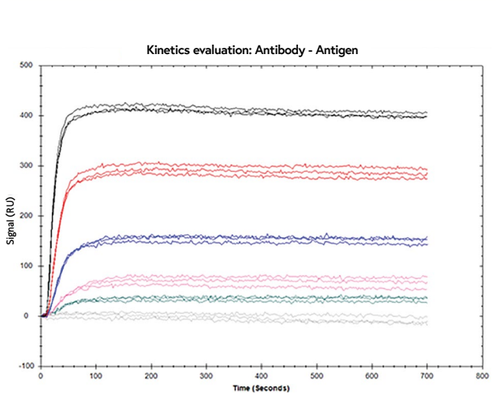


Protein-Protein

Ligand: Biotinylated protein immonbilized onto a Streptavidin Sensor

Analyte: Mutant protein

k_{on} = 0.35x10^{6} M^{-1}s^{-1}
k_{off} = 2.0x10^{-3} s^{-1}
K_D = 5.7 nM



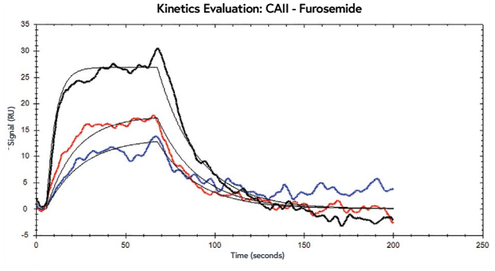
Antibody-Antigen

Ligand: Anti-PSA immobilized onto Gold Sensor with custom chemistry

Analyte: PSA

k_{on} = 4.0x10^{4} M^{-1}s^{-1}
k_{off} = 1.8x10^{-6} s^{-1}
K_D = 4.5 nM

CV=3.2%

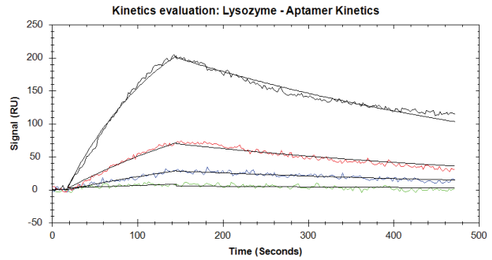


Protein-Small Molecule

Ligand: CAII protein immobilized onto a High Sensitivity Carboxyl Sensor

Analyte: Furosemide. (330 Da)

k_{on} = 1.7x10^{4} M^{-1} s^{-1}
k_{off} = 4.4x10^{-2} s^{-1}
K_D = 2.5 µM

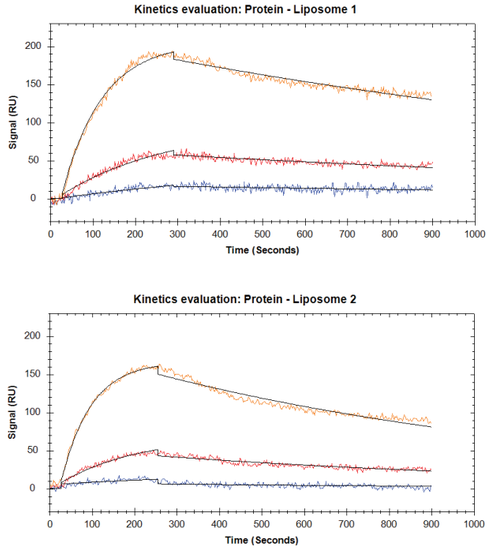


Protein-Aptamer

Ligand: Aptamer (biotinylated) immobilized onto Streptavidin Sensor

Analyte: Lysozyme

k_{on} = 1.8x10^{5} M^{-1}s^{-1}
k_{off} = 2.6x10^{-3} s^{-1}
K_D = 14.6 nM



Protein-Lipid

Ligand: Liposomes formed with 2 different phospholipids, immobilized onto Liposome (LIP-1) Sensors

Analyte: Proprietary protein

Liposome 1

k_{on} = 810 M^{-1}s^{-1}
k_{off} = 5.53x10^{-4} s^{-1}
K_D = 682 nM

Liposome 2

k_{on} = 1100 M^{-1}s^{-1}
k_{off} = 9.24x10^{-4} s^{-1}
K_D = 841 nM

“The OpenSPR is being used everyday in our department and we love it because it’s user-friendly, and we get the data we need from our own bench!”

He (Grace) Gu

Biochemistry, Cellular & Molecular Biology
Ph.D. Student, Johns Hopkins University

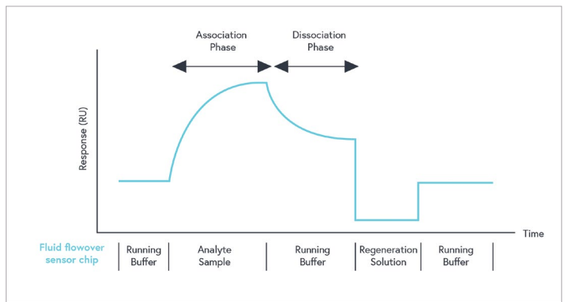
Surface Plasmon Resonance

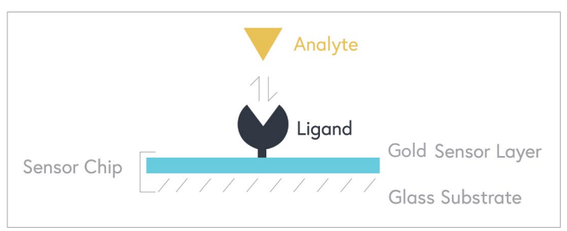
An Introduction to SPR

What is Surface Plasmon Resonance (SPR)?

SPR is an analytical technique for studying molecular interactions.

SPR is an optical effect that can be utilized to measure the binding kinetics and affinity of molecular interactions in real-time without the use of labels. SPR is unique because it is one of the few techniques that allows determination of binding kinetics and not just binding affinity, as you would get from traditional techniques like ELISA. The binding kinetics, or the on and off rates, can only be determined with a biosensing technique that gives real-time binding data of both the association and dissociation phases of the interaction. This data gives detailed insight into the binding strength and stability of the interaction, which is critical for many industries and research areas. It helps researchers determine which molecules interact, how strongly they interact, and the kinetics of the interactions.





Why SPR?

SPR is becoming a standard technique available in every single biochemistry lab.

1. **Real-Time Monitoring**
   Provides binding kinetics (on/off rates, yes/no binding and affinity values)
2. **Label-Free Detection**
   Avoid spending time and money on expensive labeling reagents and protocols
3. **Conserve Precious Samples**
   Save money using low sample volumes and concentrations
4. **Reusable Sensor Chips**
   Regeneration buffers are used to disrupt the interaction between the analyte and ligand
5. **Complex Sample Testing**
   Test crude samples to reduce time and cost associated with purification
6. **Reliability and Accuracy**
   Obtain accurate results from repeatable measurements associated with purification

How does SPR Work?

The SPR instrument consists of an optical measurement system, a fluid handling system, and a sensor chip.

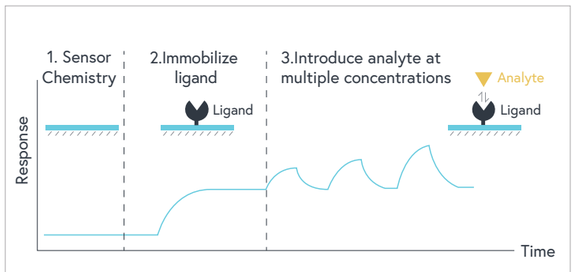
An SPR sensor consists of a very thin gold layer coated onto a glass substrate. When a light source illuminates the gold layer, a plasmonic wave is generated with an electric field extending above the surface of the sensor. This electric field of the sensor is very sensitive to changes in the dielectric constant and can detect changes in mass or refractive index on the sensor surface, such as a molecular binding event. An optical detection system is used to measure the changes of the sensor properties, creating a response signal to measure molecular interactions in real-time.

Overview of an SPR Experiment

The entire experiment from start to finish takes place within the SPR instrument! This means that real-time data is displayed throughout the experiment, giving the user instant feedback and flexibility for fast and easy optimization. The basic steps for performing an experiment are outlined below:

1. Begin with a functionalized sensor with selected chemistry (eg. Carboxyl, NTA, Streptavidin, etc.) for easy immobilization of your target.
2. Immobilize your target to the sensor. The immobilized target will be referred to as the *ligand*.
3. Introduce the binding partner at multiple concentrations to observe the interaction with the ligand target. The second binding partner is referred to as the *analyte*.

The response graph can be interpreted as biomolecules being added or removed from the sensor surface. An increase in the response corresponds to a binding event of a biomolecule. For kinetic analysis of the analyte binding curves, both the association and dissociation of the kinetic interaction is measured.



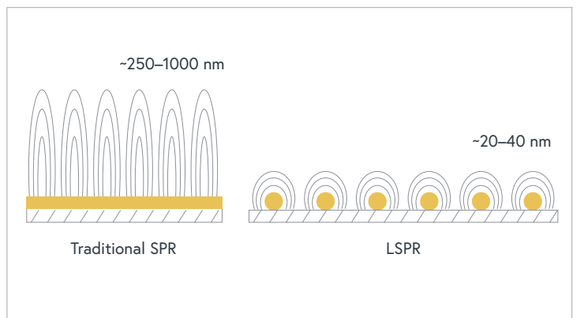
How is LSPR Different from SPR?

Localized surface plasmon resonance is generated by gold nanoparticles as compared to a continuous gold film as used in traditional SPR.

OpenSPR uses localized surface plasmon resonance (LSPR). LSPR produces a strong resonance absorbance peak in the visible range of light, with it's position being highly sensitive to the local refractive index surrounding the particle. Therefore, OpenSPR measures small changes in the wavelength of the absorbance position, rather than a reflected angle as in traditional SPR.

Advantages of Using LSPR Instead of SPR

- The optical hardware for LSPR is less complex, so the instrument is smaller and more affordable
- Since the angle is not important, the instrument is more robust against vibration and mechanical noise
- LSPR is not as sensitive to bulk sample effects, which causes errors in experimental data, because it has a much shorter electromagnetic field decay length
- No strict temperature control is needed
- The sensor chips can be manufactured at a much more affordable price
- Instruments are easier to use and maintain



OpenSPR™ vs. Biacore™ vs. Octet™ Comparison Study

Summary

- **Binding Kinetics of biotinylated CD16a and IgG were characterized using the OpenSPR™, Biacore™ 3000 and Octet™ RED96**
- **K_D values measured with the OpenSPR™, Biacore™ and Octet™ were found to be 74.7 nM, 48.7 nM and 226 nM, respectively**
- **This study supports the equivalency of OpenSPR with other commercial instruments for the analysis of binding kinetics and affinity**

Overview

OpenSPR™ is a powerful instrument providing in-depth label-free binding kinetics for a variety of different molecular interactions. To demonstrate the powerful capabilities and accuracy of the OpenSPR™, a side by side comparison study was conducted against a Biacore™ 3000 and Octet™ RED96. The Biacore™and Octet™ systems, are commonly used for analyzing binding kinetics but cost hundreds of thousands of dollars, making them inaccessible to many researchers who need this data. To show that OpenSPR™ is able to generate comparable results to the Biacore™ and Octet™ for a fraction of the cost, an Fc-FcR interaction was analyzed using these three instruments under similar conditions.

Samples and Reagents

- Ligand: Human CD-16a (FcγRIIIa) (biotinylated), SinoBiological, Cat# 10389-H27H1-B
- Analyte: Human IgG FC fragment, Abcam, Cat# Ab90285
- Running Buffer (OpenSPR™ and Biacore™): HBS-EP (0.005% Tween-20)
- Assay Buffer (Octet™ RED96): PBS (0.01% BSA and 0.002% Tween-20)

Experimental Conditions

Table 1. Summary of experimental conditions used on OpenSPR™, Biacore™ and Octet™ instruments.

	OpenSPR™	Biacore™3000	Octet™ Red96
Sensor	Streptavidin Sensor Chip	SA Sensor Chip	High Precision Streptavidin SAX Sensors
Running Buffer	HBS-EP	HBS-EP	PBS-T + 0.1% BSA
CD16a Immobilization conditions	4.5 µg/mL at 5 µL/min	30 ng/mL at 5 µL/min	5 µg/mL
Blocking	N/A	10 µg/mL biocytin	50 µg/mL biocytin
IgG Fc concentrations	31.25, 62.5, 125, 250, 500, 1000 nM	31.25, 62.5, 125, 250, 500, 1000 nM	31.25, 62.5, 125, 250, 500, 1000 nM*
IgG Fc analysis flow rate	30 µL/min	30 µL/min	N/A
Regeneration	Running buffer	Running buffer	Running buffer
Data analysis software	TraceDrawer	BIAnalysis	Octet™ software
Kinetic model used for analysis	1:1	1:1	1:1

**for kinetic analysis from Octet data, 31.25 nM and 1000 nM concentrations were omitted from the fitting.*

Results and Discussion

Results from the Fc-FcR interaction measured on the OpenSPR™, Biacore™ and Octet™ instrument can be found in Figure 1, Figure 2 and Figure 3, respectively. Data was fit in each experiment with a 1:1 binding model. OpenSPR™, Biacore™ and Octet™ determined K_D values of 74.7 nM, 48.7 nM and 226 nM, respectively. The calculated K_D values between the OpenSPR and Biacore™ 3000 are very close, while the value reported by the Octet™ differs by ~5X. The kinetic constants determined from the fits are shown in Table 2. The off-rates are similar across all three instruments, however, the on-rates differ by over an order of magnitude for the Octet™. The quality of the fits is comparable for the OpenSPR™ and Biacore™, but there is more deviation from the model seen in the Octet™ data. It is common to see variations in measured affinity and kinetic values even when running assays on the same instrument.

The closeness of the values between the Biacore™ and OpenSPR™ experiments demonstrate the comparability of these instruments for biomolecular interaction analysis. The slight differences seen can be due to minor differences in exact experimental conditions and materials used. The larger differences seen in the Octet data could be due to the higher immobilization level used, fitting differences, or fundamental differences in the dip and read technique used with BLI.

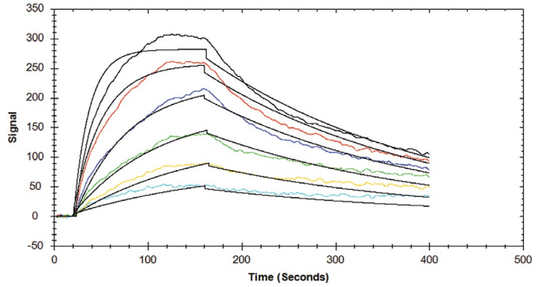


Figure 1: CD16a-Fc interaction analyzed using the OpenSPR™ with analyte concentrations of 31.25, 62.5, 125, 250, 500 and 1000 nM.

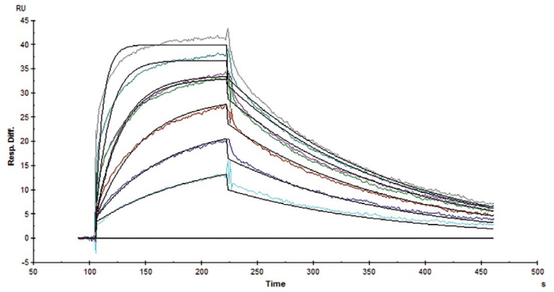


Figure 2: CD16a-Fc interaction analyzed using the Biacore™ 3000 with analyte concentrations of 31.25, 62.5, 125, 250, 500 and 1000 nM.

Table 2. Kinetic and affinity constants of the CD16a-Fc interaction measured on OpenSPR™, Biacore™ and Octet™.

	OpenSPR™	Biacore™3000	Octet™ Red96
k_{on}	5.57e4	1.42e5	2.68e4
k_{off}	4.16e-3	6.89e-3	6.08e-3
k_D	7.47e-8	4.87e-8	2.26e-7

Conclusions

In summary, the OpenSPR™ and Biacore™ instruments reported similar kinetics and affinity values for the interaction studied. This supports the use of OpenSPR™ for affordable and benchtop characterization of accurate binding interactions.

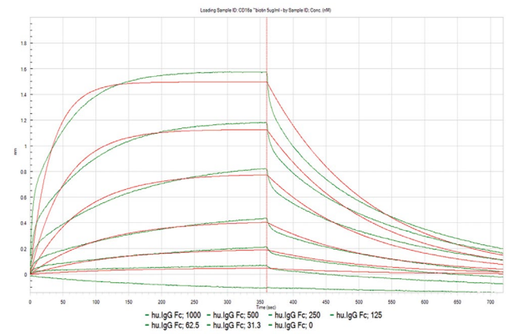


Figure 3: CD16a-Fc interaction analyzed using the Octet™ RED96 with analyte concentrations of 31.25, 62.5, 125, 250, 500 nM and 1000 nM. Green lines represent measured curves and red lines represent 1:1 fits.

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