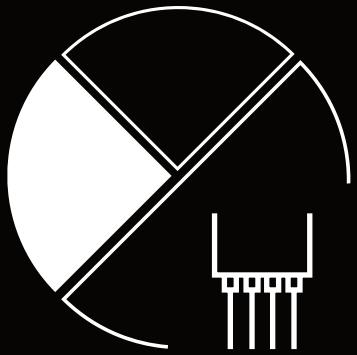
FOx BIOSYSTEMS

WHITE FOx

Breaking the limits in bioanalysis



‘Our expertise
now allows us to efficiently
transfer an ELISA to the WHITE FOx.
An optimized FOx assay saves us
time when running the assay.’

Karen Vanhoorelbeke,
Pharmabs, KULEUVEN

Measure real-time kinetics directly in complex samples with easy to use dip-in reading.

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WHITE FOx is the only SPR system that can reliably measure in crude samples, including whole blood.

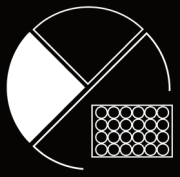
- The performance and speed of SPR
- The ease of use of a dip-in sensor
- Process crude samples, no clogging, no cleaning

Breaking limits

Crude matrices or blood

Large particles and vesicles

Labeled



Fast sandwich assays

Label-free

Label-free quantification of protein and antibodies

Kinetics

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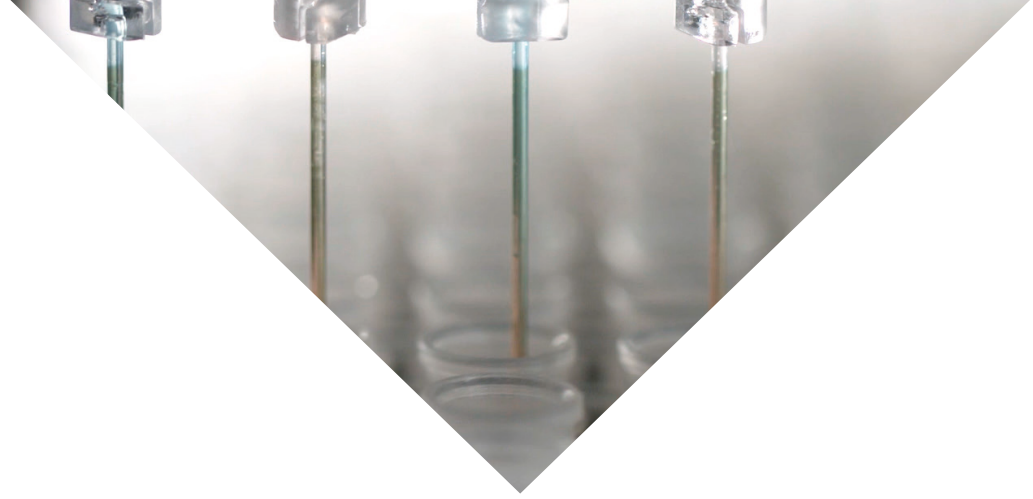


Probes

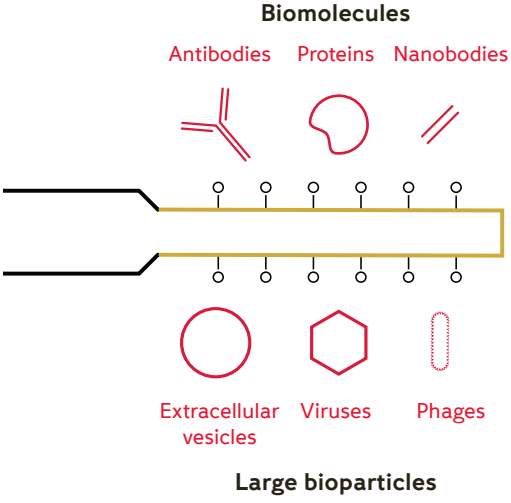
Interchangeable dip-in FO-SPR probes:

- Multiple surface chemistries available
- Low non-specific binding
- Can be regenerated and reused

Suitable for label-free detection, affinity ranking, kinetic analysis and fast sandwich assays.

Carboxyl	Generic surface chemistry for full control
NTA	Ideal for analyzing His-tag proteins
Streptavidin	Simply functionalize with your biotinylated molecules
Protein A	Direct IgG quantification and potency screening, easy regeneration

Visit foxbiosystems.com to see what researchers have published using FO-SPR probes.



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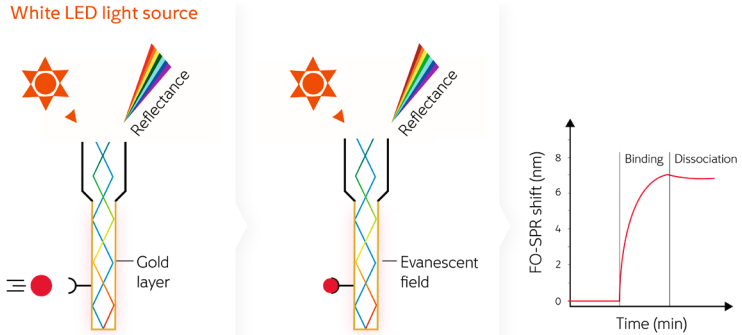
Instrument

Benefits of WHITE FOx:

- Fiber-optic surface plasmon resonance
- Label-free and labeled applications
- Binding kinetics and quantification
- No fluidics: no clogging, low maintenance
- Measure directly in simple or complex matrices
- Measure large particles
- Unprecedented robustness and low maintenance
- Fast time-to-result
- Reduced hands-on time

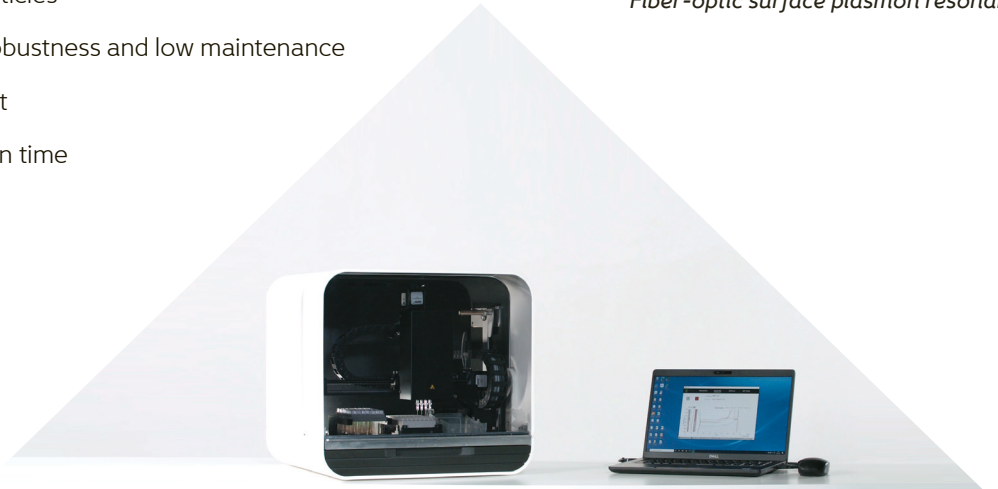


1. Analyte binds target.

2. Mass difference changes refractive index, altering the spectrum of reflected light.

3. Spectrometer readout is converted to real-time binding and dissociation curves.

Fiber-optic surface plasmon resonance



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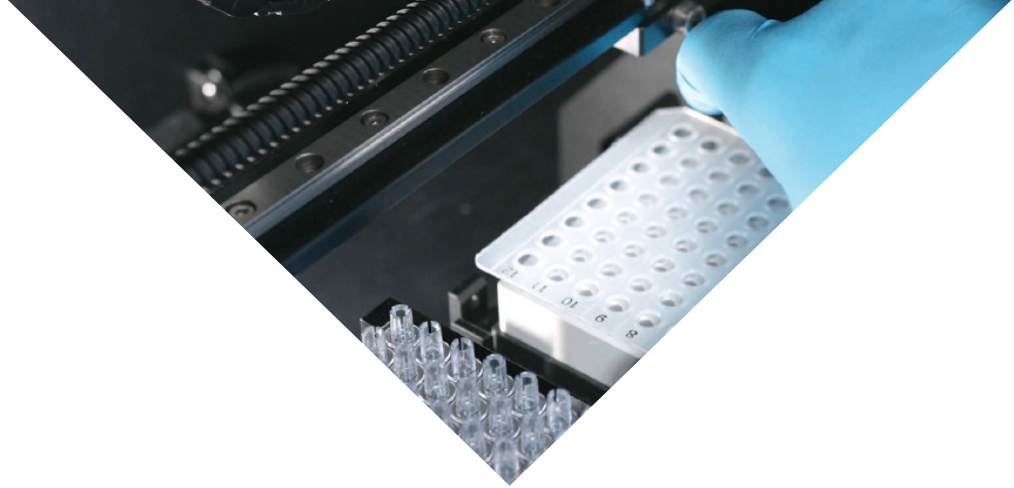


Easy

Even for challenging samples

No fluidics, no clogging.

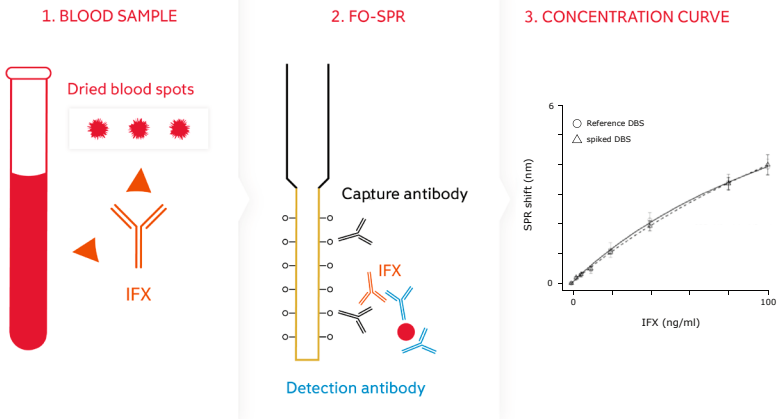
- Analyze complex matrices without sample prep
- Analyze large biomolecules, complexes and large structures like phage, viruses or vesicles
- Avoid time-consuming maintenance and cleaning

Application areas:

- General protein characterization
- Immunoassay development
- Diagnostic development
- Screening and R&D for biologicals
- Bioprocess control

FO-SPR can accurately detect antibodies in dried blood spots.

The therapeutic drug antibody, infliximab (IFX), was spiked into blood and dried. The IFX concentration from the extract using FO-SPR correlated well with results using ELISA.

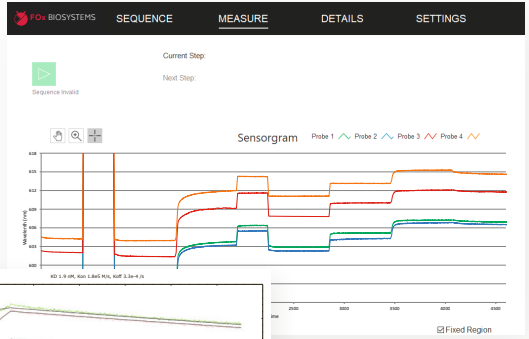


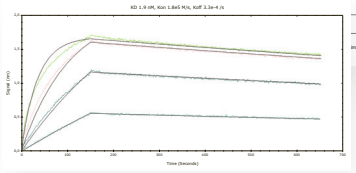
Lu et al. (2017) Immunoassay for detection of infliximab in whole blood using a fiber-optic surface plasmon resonance biosensor. Anal. Chem. 89, 3664–3671

Software

Software is an important part of the FO-SPR package.

- Easy to create and change protocols without programming skills using the intuitive, visual interface
- Follow sensorgrams in real time or leave the run unattended and view the data later
- Open data format compatible with standard data-handling software
- Data processing tool makes it easy to select and group curve sequences of interest and export data
- Data analysis suite for detailed kinetics and calibration curves





Specifications

Model	WHITE FOx 1	**Mixing frequency**	Max. 2000 rpm
PC interface	USB 2.0 high-speed	**Mains supply**	100-240 V (±10%) / 50-60 Hz, IEC connector
Software & operating system	User-friendly, Windows 10, 64 bit compatible	**Max. power**	300 VA
Concentration range	µM - nM (label free); pM - fM (sandwich assays)	**Fuses**	1x T4AL250V
Assay volume	140 µl/well; non-destructive testing	**Size**	45 cm(W) x 43 cm(L) x 42 cm(H)
# of probes in parallel	4	**Weight**	24 kg
Capacity	96 well plate; 96 probes	**Electrical safety**	IEC protection class 1
Temperature control	Ambient to 42°C	**Conformity**	CE

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Or visit

www.foxbiosystems.com