

WHITE FOX

Simplify your analytical
workflows for biomolecules,
phage, VLPs, and exosomes

So easy



Quantitation and kinetics

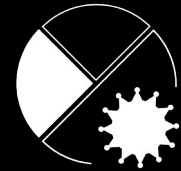
WHITE FOX is the only system capable of measuring kinetic binding directly in cell culture media, serum, plasma, and blood.

No clogging, no cleaning between samples

Breaking limits

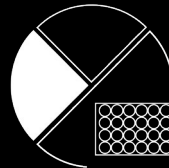


Cell culture media, plasma, serum, and blood



VLP, vesicles, and more

Labeled



Real-time high sensitivity, high specificity sandwich assays

Label-free



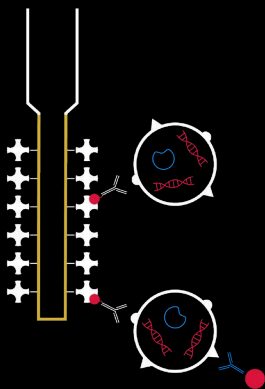
Label-free quantitation of proteins, antibodies, vesicles, and more



Kinetics in purified and crude samples

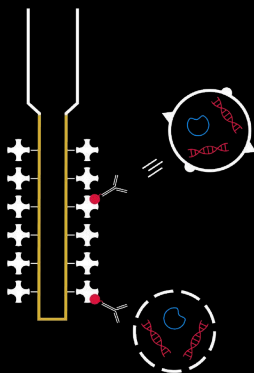
DETECT & QUANTIFY

label-free with option for sandwich



RELEASE

intact EVs or lysed content



Innovative!

One-step workflow for particle
quantitation and isolation

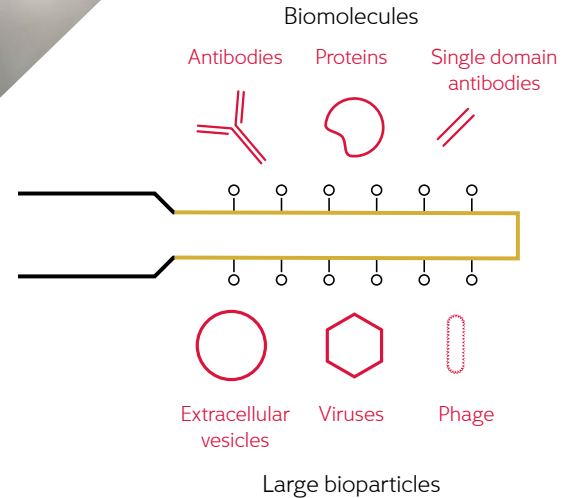
Fast signal amplification
and multi-label assays

Probes

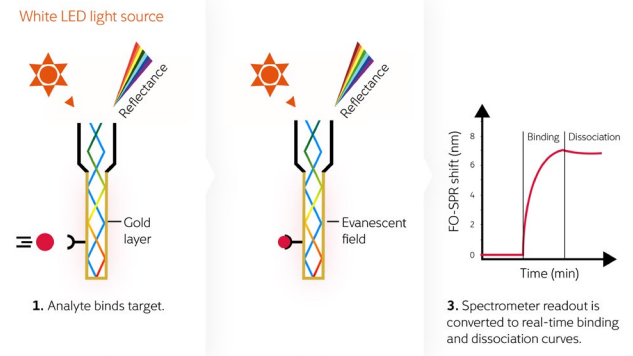
Multiple surface chemistries available, with low non-specific binding.
Suitable for label-free detection, affinity ranking, kinetic analysis,
and fast sandwich assays.

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

Visit [foxbiosystems.com](https://www.foxbiosystems.com) to see what researchers have published using WHITE FOX.

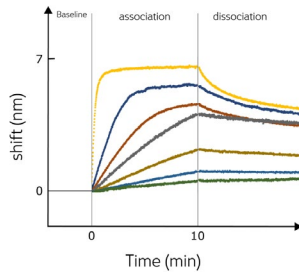


Internal detection of surface interactions



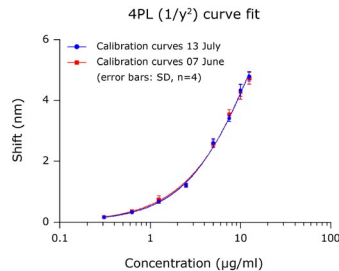
Biomolecule kinetics

- Easy-to-use protocols
- Individual determination of k_{on} , k_{off} and k_D
- Provides insights missed by traditional assays
- Excellent reproducibility
- Identify the best binders for a target or marker



Robust quantitation

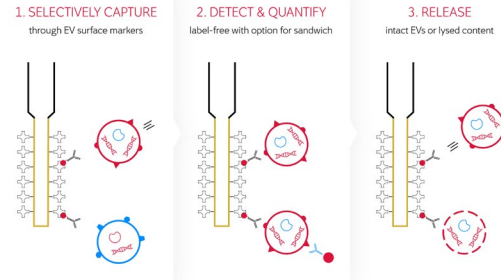
- Robust calibration curves
- Label free μM - nM range
- Labeled pM - fM range
- Short time to result



Extracellular vesicles

Avoid complex purification

- Integrated one-step quantitation and affinity isolation
- Highly sensitive and marker specific
- Can be performed in cell culture media or blood plasma samples
- nm to μm vesicle size range



Phage display

Simplify your workflow

- Label-free monitoring of polyclonal selection rounds in bacterial lysate
- Kinetic characterization directly on monoclonal phage
- Wide range of affinity from nanomolar to picomolar
- On-phage determination of k_{on} , k_{off} and k_D
- Approx. 30 minutes from sampling to result

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

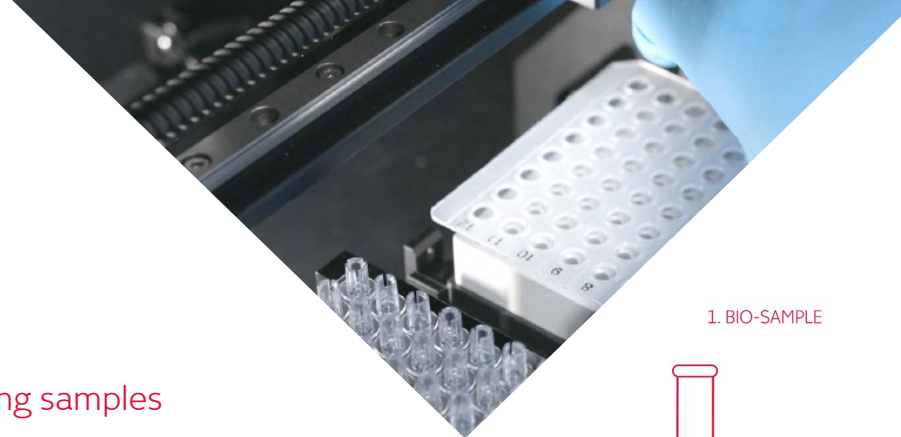
Application areas:

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

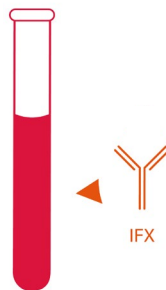
Fiber-optic sensing can accurately detect antibodies in dried blood spots.

The therapeutic drug antibody, infliximab (IFX), was spiked into blood.

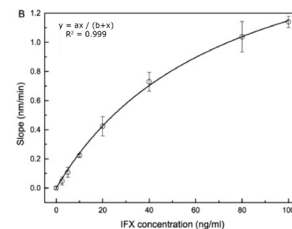
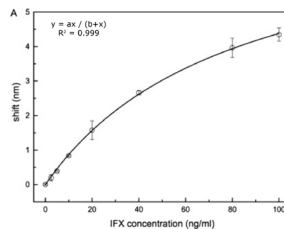
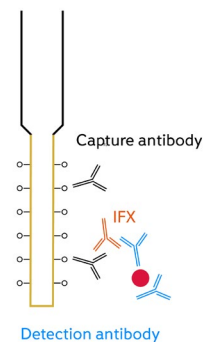
The IFX quantitation from the extract using WHITE FOx correlated well with results using ELISA.



1. BIO-SAMPLE



2. FAST DETECTION

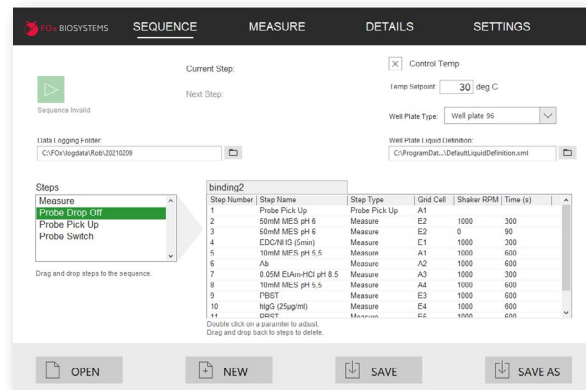


Lu et al. (2017) Immunoassay for detection of infliximab in whole blood using a fiber-optic surface plasmon resonance biosensor. *Anal. Chem.* 89, 3664–3671

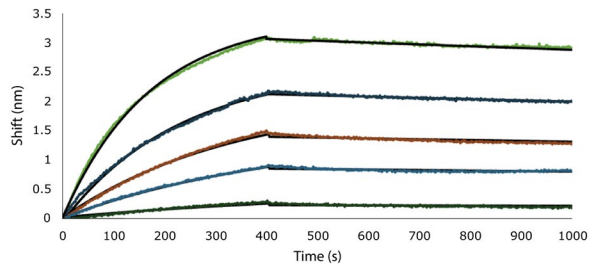
Software

- Easy protocol creation
- Simplified optimization through in-run adaptation capability
- Data analysis suite for detailed kinetics and calibration curves

Intuitive protocol creation

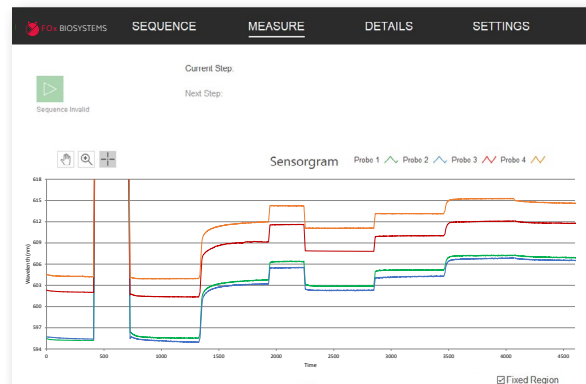


Kinetic analysis



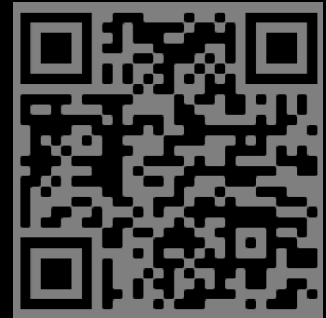
K_{on} (1/(M*s))	K_{off} (1/s)	K_D (M)	Chi2
1.4×10^5	1.0×10^{-4}	7.26×10^{-10}	<0.001

Real-time data



Benefits of WHITE FOx

- Easy to use
- Eliminates sample preparation steps to make your workflows more efficient
- Non-expert operation: no need to wait for core instrument availability
- Compact design, can be located directly in your workspace
- Open data format allows for simple integration



Contact us

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Or visit

www.foxbiosystem.com

For research use only, not for use
in diagnostic procedures