

Double the colors.

Discover the possibilities.

## Introducing the DRX<sup>2</sup> Analysis of two molecular probes on the same detection spot

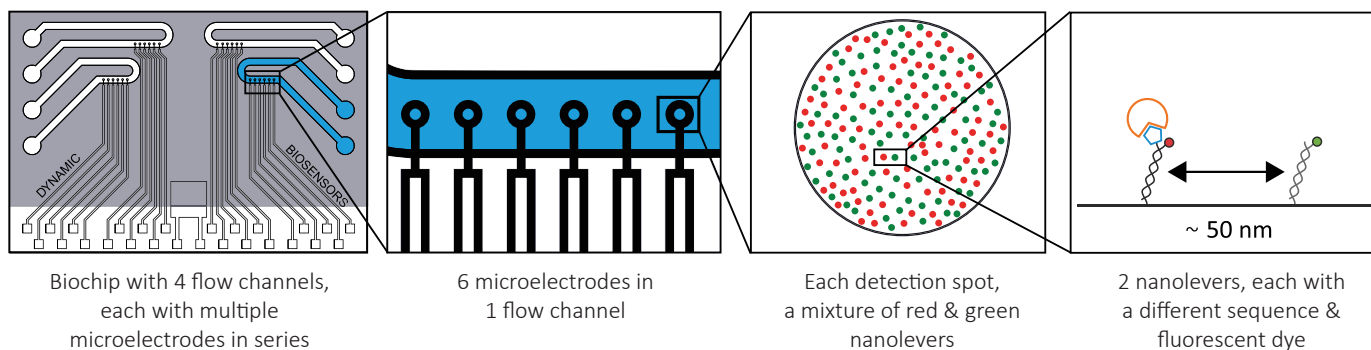
switchSENSE® technology tracks the movement of fluorescently tagged DNA nanolevers bound to a gold biochip surface.

The nanolevers can be used to hold target molecules, for instance coupled antigens, or can be the target themselves when studying interactions with nucleic acid. switchSENSE® measures the kinetics of the interaction plus provides biophysical information on size,

shape and position, all in real time.

The new double color DRX<sup>2</sup> instrument is equipped with two light sources and two photon counters optimized for red & green fluorophores. This offers the capability to simultaneously, yet separately track two different nanolevers, each with a different sequence and fluorescent tag (red & green).

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switchSENSE® sensor spots ( $\approx 0.01 \text{ mm}^2$ ) are populated with nanolevers at a density of around one million nanolevers per spot. On double color DRX<sup>2</sup> biochips, a mixture of red and green nanolevers reside around 50 nm from each other on the same sensor spot.

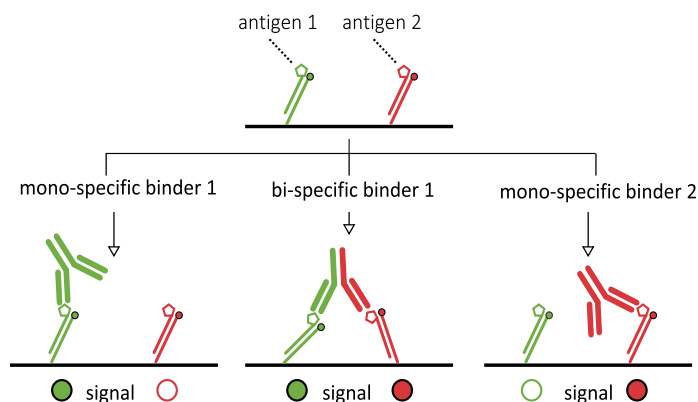
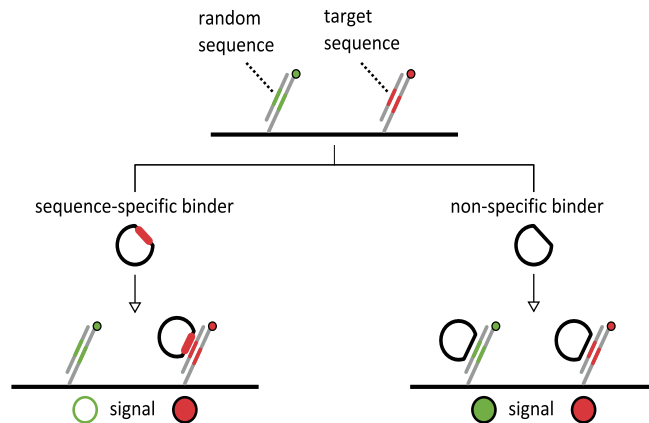
One nanolever can be used as reference and the other can be functionalized with the target molecule for measurements. Users can also define both the ratio of red:green levers, for instance 1:1 or 10:1, plus change lever density, lever length and target.

Contact [info@dynamic-biosensors.com](mailto:info@dynamic-biosensors.com) to speak to our application team about methodologies or to arrange a demonstration.

Explore fresh new avenues of research  
 Double the colors, much more than double the opportunities

### DNA Binding Proteins

Two different nanolever populations, marked with different colored tags, on the same detection spot, lying in close proximity. Use one nanolever as the target and the other as the control for absolute data quality and confidence.



### Dual Binding Modelling

Presenting two interchangeable targets at fixed and known positions, **switchSENSE®** offers the ultimate solution for understanding bivalent / bispecific antibody design.

## Specifications of DRX<sup>2</sup>

Automated liquid handling and dilution series platform for 96-well plates or vials.  
 Full walk-away operation for overnight measurement and multiple regenerations.  
 Reusable biochips. Temperature-controlled environment.

Limit of detection	10 fM
Dissociation constant	50 fM- 1 mM
Association rate constant	$10^3 - 10^8 \text{ M}^{-1}\text{s}^{-1}$
Dissociation rate constant	$10^{-6} - 1 \text{ s}^{-1}$
Hydrodynamic diameter accuracy	0.1 nm
Temperature	8°- 75°C (chip) / 10°- 40°C (autosampler)



**switchSENSE®** is a proprietary measurement technology by Dynamic Biosensors GmbH.  
 Instruments and biochips are engineered and manufactured in Germany.