

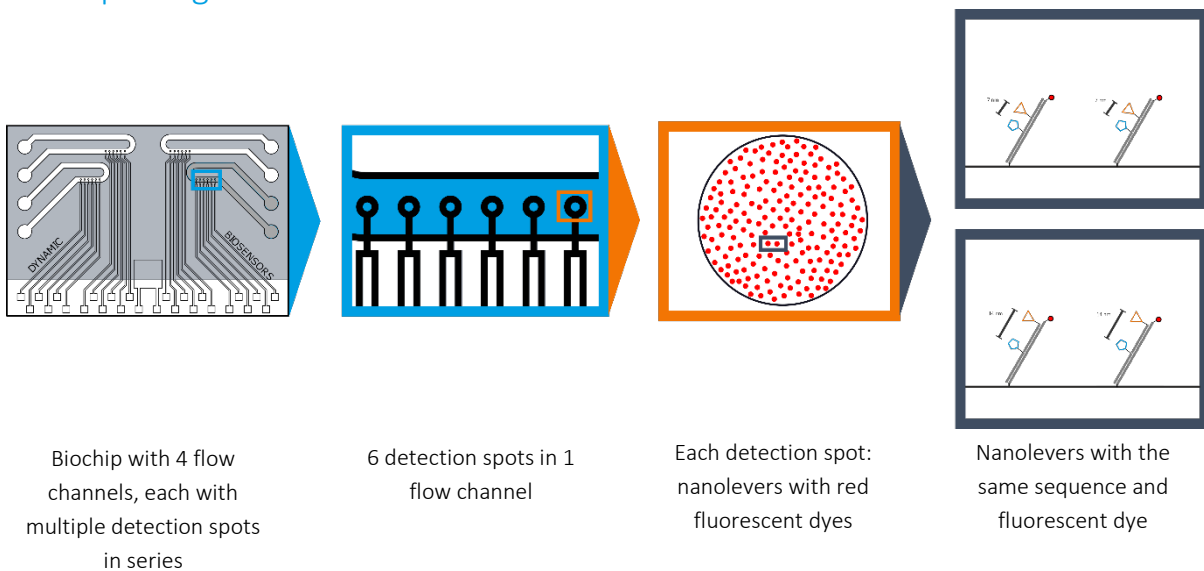
switchSENSE® Biochip BIF-96-2-R1-S

Product Description

Product Code	BIF-96-2-R1-S
Suitable for	switchSENSE® DRX ^{red} & DRX ²
Storage	Store at 2-8 °C, dry in the dark
Layout	2 reference spots (nanolever A) and 4 probe spots (nanolever B)
Grade	Standard

Multi-purpose chips are versatile tools to analyze protein-protein, protein-small molecule, DNA/RNA-protein and DNA/RNA-small molecule interactions.

Biochip Design

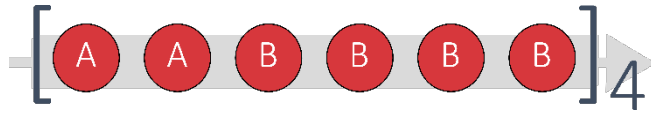


The detection spots are functionalized with one nanolever, either NL-B96 on probe spots or NL-A96 on reference spots. The 5'-end of the DNA is fixed on the surface while the 3'-end carries a red fluorescent dye (R1).

For functionalization either CK-NH2-5-B96 or CK-NH2-6-B96 are available. The first kit provides the possibility to bind two antigens in a distance of 7 nm on the nanolever B96, the later features a distance of 14 nm for the two antigens.

Biochip Layout I Flow channels with 2 reference (A) & 4 probe (B) spots (end-point referencing in same channel)

This biochip - presenting 2 reference sequence (NL-A96) and 4 probe sequence (NL-B96) spots - enables to measure the reference in the same flow channel.



For more information about the DNA sequences, please contact us at info@dynamic-biosensors.com.

Application Areas

<i>Binding Kinetics*</i>	k_{on}, k_{off}, K_D
<i>Binding Affinity*</i>	$K_D, \text{titration curve}, n \text{ (Hill coefficient)}$
<i>Protein Diameter*</i>	$D_H \text{ (Hydrodynamic diameter)}$
<i>Conformational Change*</i>	$\Delta D_H \text{ (relative change of hydrodynamic diameter)}$
<i>Melting & Thermodynamics*</i>	$T_M, \Delta G, \Delta H, \Delta S$
<i>Multimers & Aggregation*</i>	<i>Monomer-dimer discrimination, aggregation</i>
<i>Nuclease & Polymerase Activity*</i>	$k_{cat}, K_M, T_{activate}$
Bispecific Binders & Avidity	Binding affinity/avidity/kinetics

** for this application, other biochips (BIF or ENZ) are recommended*

Biochip Handling

The biochip is ready to use. For research only.

Avoid touching or picking up the biochip with your hands as this may cause bilayer electrostatic discharge. Instead, always use the vacuum tweezers provided with the instrument when handling the biochips.

After installing the biochip in the DRX instrument and before starting an experiment be sure that the selected channel is passivated with passivation solution (Order No. SOL-PAS-1-5).

More information about biochip storage and handling can be found in the document “switchSENSE Biochips Storage Information”.

Grade I Standard

Standard grade chips are batch tested which means one out of a batch undergoes a comprehensive quality control – proper switching dynamics, calibration (voltage-response of the DNA layer) and fluorescence levels. In addition each biochip is tested for proper fluorescence levels on each electrode. Due to the production process, not all detection spots fulfill our high quality standards. Each standard grade biochip is certified as having 20 or more active detection spots.

Compatible Functionalization Kits

All compatible functionalization kits for this biochip are listed on our website:

www.dynamic-biosensors.com/reagents/

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