

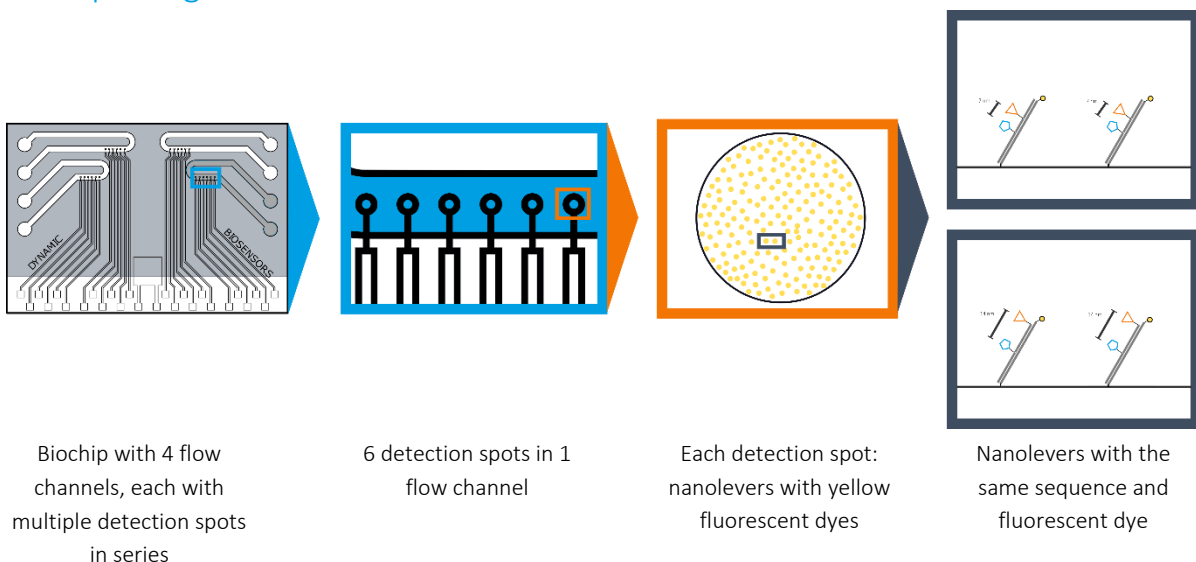
switchSENSE® Biochip BIF-96-2-Y1-S

Product Description

Product Code	BIF-96-2-Y1-S
Suitable for	switchSENSE® DRX ^{yellow}
Storage	Store at 2-8 °C, dry in the dark
Layout	2 reference spots (nanolever A) and 4 probe spots (nanolever B)
Grade	Standard

Bi-functional chips offer a very flexible and powerful platform to study bi-functional antibodies, e. g. to discriminate between complex binding modes (monovalent versus bivalent or bispecific).

Biochip Design

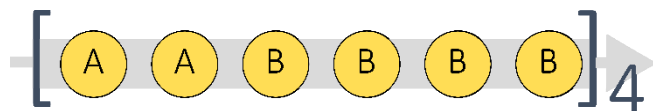


The detection spots are functionalized with one nanolever, either NL-B96 on probe spots or NL-A96 on reference spots. The 5'-end of the DNA is fixed on the surface while the 3'-end carries a yellow fluorescent dye (Y1).

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

* for this application, other biochips (MPC 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 biolayer 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).

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.

We recommend standard grade biochips for testing new assays and to gain first results.

Compatible Functionalization Kits

The following functionalization kits can be used with this biochip:

- CK-NH2-5-B96 **Amine coupling kit 5 for 96 mer**
for bi-functional analytes; two antigens (distance 7 nm) - one nanolever NHS modifier,
sufficient for 5 different conjugations
- CK-NH2-6-B96 **Amine coupling kit 6 for 96 mer**
for bi-functional analytes; two antigens (distance 14 nm) - one nanolever NHS modifier,
sufficient for 5 different conjugations

Contact

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Order Information

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