heliX+
User Manual

BRUKER
Biosensors

ADAPTER STRAND 2

with red dye **Rb**

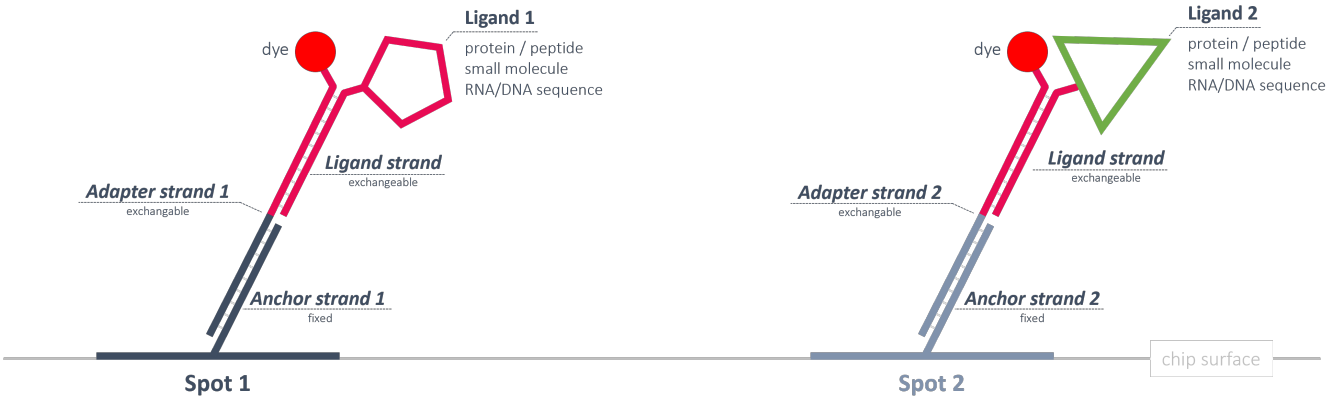
Dynamic Biosensors GmbH
AS-2-Rb v5.1

Key Features

- ***Adapter strand* 2** for functionalization of **heliX® Adapter Chip** Spot 2.
- Compatible with **heliX® Adapter Chip**.
- Includes ***Adapter strands*** for **50 regenerations**.
- Ideal for **MIX&RUN** sample preparation.
- ***Adapter strand* 2** carries a hydrophilic red dye (**Rb**) with a neutral net charge.

heliX® Adapter Chip Overview

2 spots with 2 different anchor sequences for DNA-encoded addressing.



Product Description

Order Number: **AS-2-Rb**

Table 1. Contents and Storage Information

Material	Cap	Concentration	Amount	Buffer	Storage
Adapter strand 2 - Rb	White	400 nM	5 x 100 µL	TE40 [1]	-20°C

For research use only.

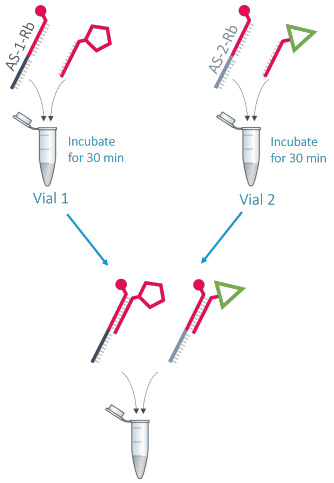
This product has a limited shelf life, please see expiry date on label.

To avoid many freeze thaw cycles please aliquot the nanolever.

Preparation | MIX&RUN

In-solution hybridization of adapter and ligand strands:

1. Mix ***Adapter strand 1 - Rb*** (400 nM) and conjugated ***Ligand strand*** with ligand **1** (500 nM) at 1:1 ratio (v/v).
2. Mix ***Adapter strand 2 - Rb*** (400 nM) and conjugated ***Ligand strand*** with ligand **2** (500 nM) at 1:1 ratio (v/v).
3. Incubate separately the two solutions of step 1 and 2 at **RT** at **600 rpm** for **30 min** to ensure complete hybridization.
4. Mix solution of step 1 and 2 at 1:1 ratio (v/v).



Solution is ready to use for biochip functionalization.

Stability of the solution is related to the stability of the ligand molecules.

Table 2. Additional material for functionalization of spot 1 and reference spot 2.

Material	Concentration	Buffer	Related Product Name	Order No
Adapter strand 1 - Rb	400 nM	TE40 [1]	***Adapter strand 2*** with red dye **Rb**	AS-1-Rb
Ligand strand carrying the conjugated ligand 1	500 nM	PE40 [2]	**heliX**® Amine Coupling Kit 1	HK-NHS-1
Ligand strand carrying the conjugated ligand 2	500 nM	PE40 [2]	**heliX**® Amine Coupling Kit 1	HK-NHS-1

Example

Required volume for 3 functionalizations: **100 µL** with a final concentration of **100 nM**.

Vial 1		Vial 2	
Adapter strand 1 - Rb (400 nM)	Conjugated ***Ligand strand*** with ligand 1 (500 nM)	***Adapter strand 2 - Rb*** (400 nM)	Conjugated ***Ligand strand*** + with ligand 2 (500 nM)
25 µL	25 µL	25 µL	25 µL

After incubation time, mix vial 1 and vial 2 to obtain 100 µL of ready-to-use DNA solution.

Contact

Dynamic Biosensors GmbH
Perchtinger Str. 8/10
81379 Munich
Germany

Bruker Scientific LLC
40 Manning Road, Manning Park
Billerica, MA 01821
USA

Order Information **order@dynamic-biosensors.com**
Technical Support **support@dynamic-biosensors.com**

www.dynamic-biosensors.com

Instruments and chips are engineered and manufactured in Germany.

For Research Use Only. Not for use in clinical diagnostic procedures.

[**1**] TE40: 10 mM Tris, 40 mM NaCl, 0.05 % Tween20, 50 µM EDTA, 50 µM EGTA
[**2**] If the protein is not stable in PE40 (TE40, HE40), please check buffer compatibility with the **switch**SENSE® compatibility sheet.