# heliX <sup>+</sup> User Manual



## **ADAPTER STRAND 2**

with red dye **Rb** 

Dynamic Biosensors GmbH AS-2-Rb v5.1



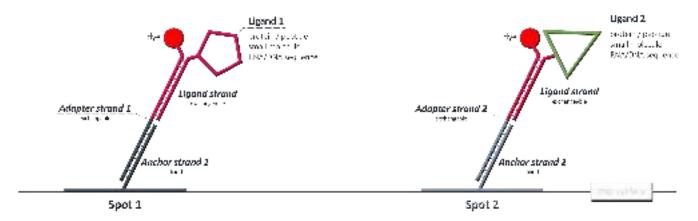


### **Key Features**

- 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	Сар	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

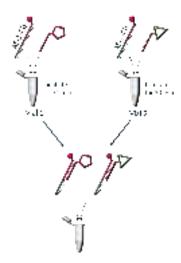
In-solution hybridization of adapter and ligand strands:

- 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.





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 <sup>[2]</sup>	heliX® Amine Coupling Kit 1	HK-NHS-1
Ligand strand carrying the conjugated ligand 2	500 nM	PE40 <sup>[2]</sup>	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 <i>Ligand strand</i> with ligand 1 (500 nM)	Adapter strand 2 - Rb (400 nM)	Conjugated <i>Ligand strand</i> + 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**

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<sup>[1]</sup> TE40: 10 mM Tris, 40 mM NaCl, 0.05 % Tween20, 50 µM EDTA, 50 µM EGTA

<sup>[2]</sup> If the protein is not stable in PE40 (TE40, HE40), please check buffer compatibility with the switchSENSE® compatibility sheet.