dynamic BIOSENSORS AS-2-Rc Fully Automated Laboratory Analysis System User Manual

Contents

dynamic BIOSENSORS

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Specifications

- **Product Name**: heliX+ ADAPTER STRAND 2 with red dye Rc
- **Manufacturer**: Dynamic Biosensors GmbH & Inc.
- **Model**: AS-2-Rc v5.1
- **Key Features:**
  - 2 spots with 2 different anchor sequences for DNA-encoded addressing.
- **Order Number**: AS-2-Rc
- **Concentration:** 400 nM
- **Storage:** White cap, please see expiry date on label. Avoid many freeze-thaw cycles by aliquoting the nanolever.

Product Usage Instructions

Preparation | MIX&RUN

1. Mix Adapter strand 1 – Rc (400 nM) and conjugated Ligand strand with ligand 1 (500 nM) at 1:1 ratio (v/v).
2. Mix Adapter strand 2 – Rc (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 room temperature at 600 rpm for 30 min to ensure complete hybridization.
4. Mix solutions of step 1 and 2 at 1:1 ratio (v/v). Solution is ready for biochip functionalization.

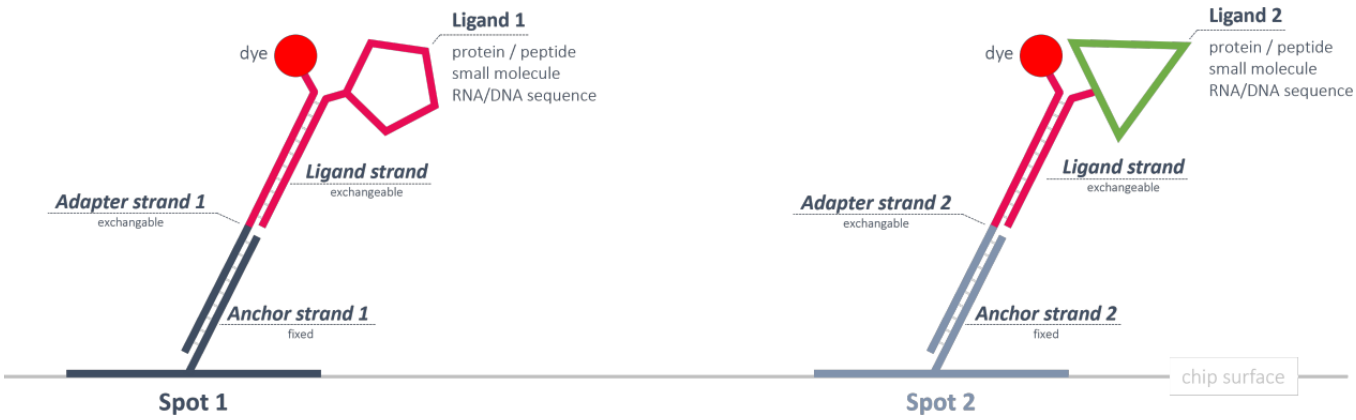
Key Features

- 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 hydrophobic red dye (Rc) 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-Rc

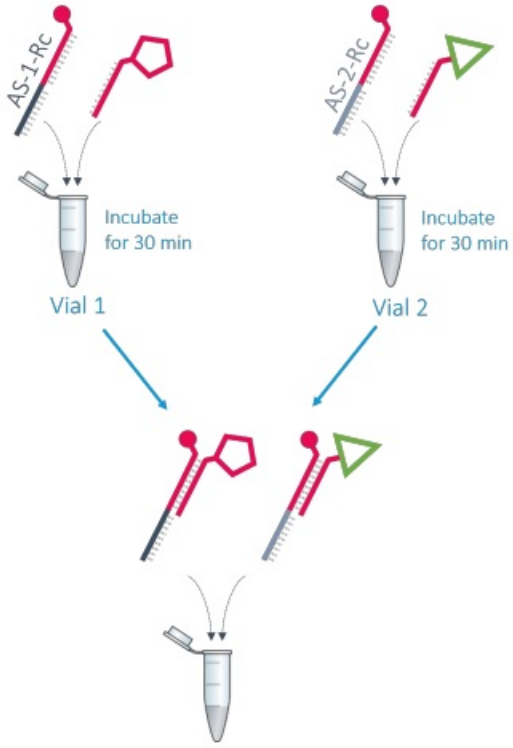
Table 1. Contents and Storage Information

Material	Cap	Concentration	Amount	Buffer	Storage
Adapter strand 2 - Rc	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 – Rc (400 nM) and conjugated Ligand strand with ligand 1 (500 nM) at 1:1 ratio (v/v).
2. Mix Adapter strand 2 – Rc (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 - Rc	400 nM	TE40 [1]	***Adapter strand 2*** with red dye **Rc**	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 - Rc (400 nM)	Conjugated ***Ligand strand*** with ligand 1 (500 nM)	***Adapter strand 2 - Rc*** (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

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- 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.

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 switchSENSE® compatibility sheet.

www.dynamic-biosensors.com

FAQ

Q: What is the shelf life of the product?
A: The product has a limited shelf life, please refer to the expiry date on the label.

Q: How should I store the product to maintain stability?
A: Store the product with a white cap to avoid exposure to light. Avoid freeze-thaw cycles by aliquoting the nanolever.

Q: How should I prepare the solution for biochip functionalization?
A: Follow the MIX&RUN preparation steps provided in the user manual to prepare the solution for biochip functionalization.

Documents / Resources

	**dynamic BIOSENSORS AS-2-Rc Fully Automated Laboratory Analysis System** [pdf] User Manual AS-2-Rc, AS-2-Rc Fully Automated Laboratory Analysis System, Fully Automated Laboratory Analysis System, Automated Laboratory Analysis System, Laboratory Analysis System, Analysis System, System

References

- **User Manual**