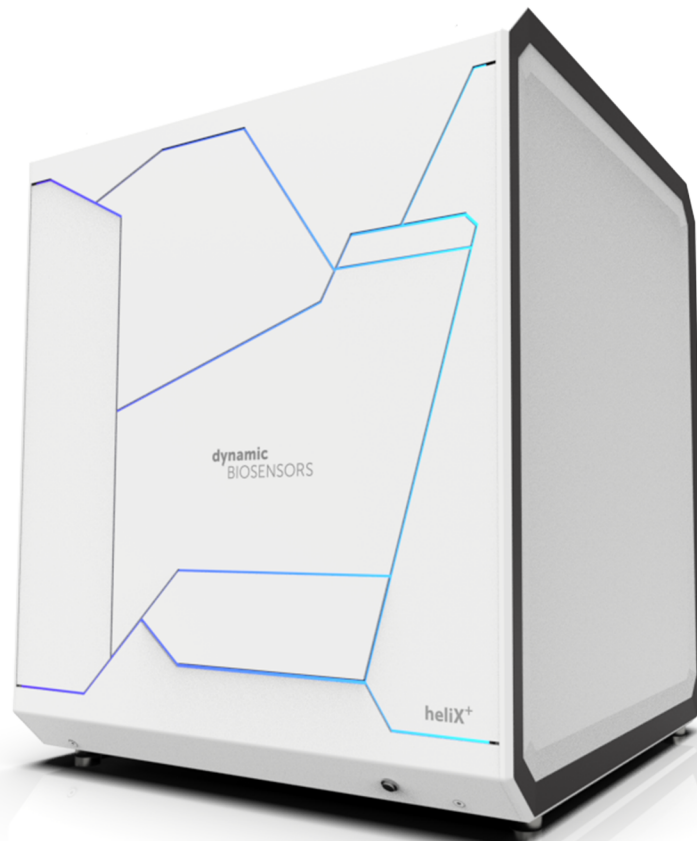


Biotin Capture kit

with red dye **Ra**

Dynamic Biosensors GmbH & Inc.
HK-SA-1 v6.1

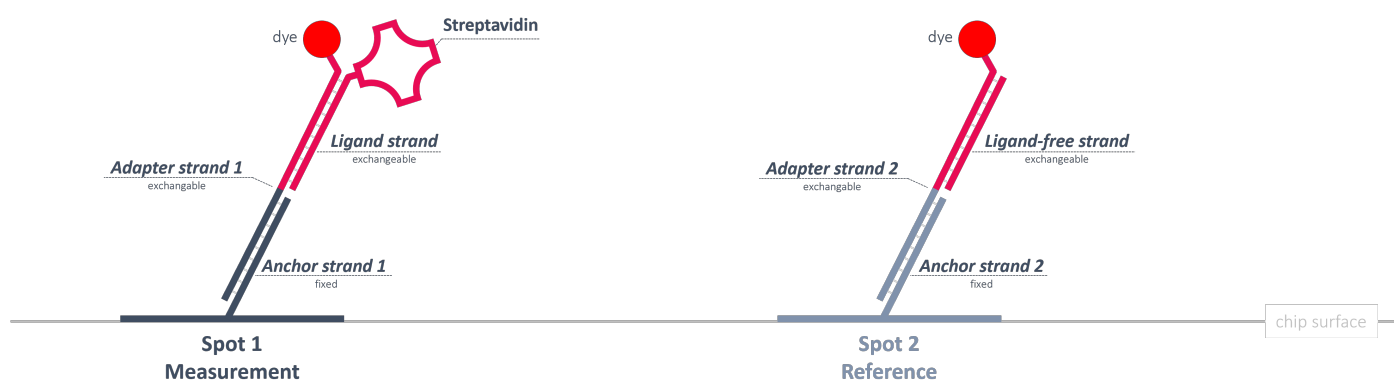


Key Features

- This kit is designed for capture of **biotinylated molecules** using **Streptavidin**.
- Compatible with **heliX[®] Adapter Chip**.
- Includes **Adapter strands** and **Ligand strand** modified with Streptavidin for **20 regenerations**.
- For functionalization of **Spot 1** and **Spot 2**.
- **Adapter strands 1** and **2** carry a moderately hydrophilic red dye (**Ra**) with a single positive net charge.

heliX[®] Adapter Chip Overview

2 spots with 2 different anchor sequences for DNA-encoded addressing. Spot 1 is functionalized with the capture molecule while Spot 2 is used as real-time reference.



Product Description

Order Number: **HK-SA-1**

Table 1. Contents and Storage Information

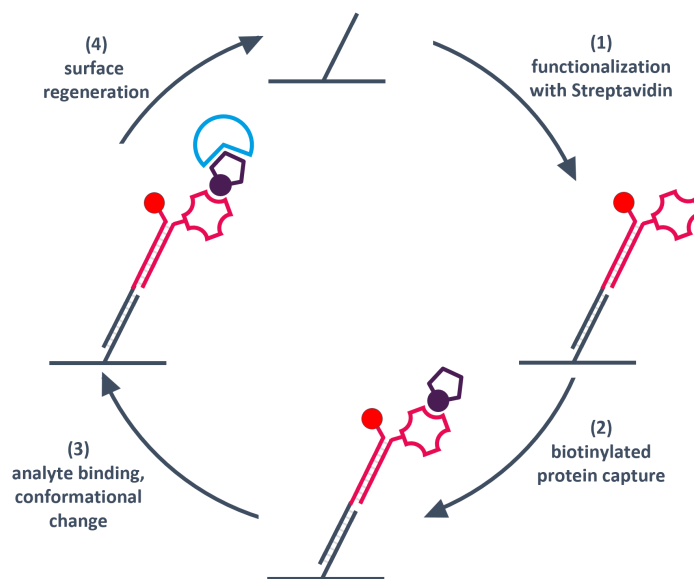
| Material | Cap | Concentration | Amount | Buffer | Storage |
|------------------------------------|-------|---------------|------------|---------------------|---------|
| SA - Ligand strand | Green | 500 nM | 2 x 100 µL | TE40 ^[1] | 2-8°C |
| Adapter strand 1 - Ra | Black | 400 nM | 2 x 100 µL | TE40 ^[1] | -20°C |
| Adapter strand 2 - Ra - lfs | White | 200/250 nM | 2 x 200 µL | TE40 ^[1] | -20°C |

For research use only.

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

After preparation of ready to use solution the expiry date is **3 months**.

Workflow of a heliX® SA - capture assay



1. The anchor strand (ssDNA) immobilized to the surface of the **heliX® Adapter Chip** is hybridized with complementary DNA strands modified with **Streptavidin**.
2. The **biotinylated ligand** of interest is captured on the surface during the measurement run.
3. Measurement of the analyte binding kinetics or conformational change upon analyte binding.
4. Surface regeneration by injection of a high pH solution. Chip surface goes back to the original state. This step can be followed by a new hybridization of fresh ligand with Streptavidin.

Preparation

1. Mix 100 µL **SA - Ligand strand** with 100 µL **Adapter strand 1 - Ra**.
2. Incubate the solution of step 1 at **RT** at **600 rpm** for **30 min** to ensure complete hybridization.
3. Mix 200 µL **Adapter strand 2 - Ra - lfs** to the sample after step 2.

The solution (400 µL in total) is ready to use for a biochip functionalization.

Please aliquot and store the ready to use solution at 2-8°C. **Use up within 3 months.**

The kit contains material for the preparation of two separate ready to use solutions with 400 µL each.

Assay Setup in heliOS

Go to **heliOS** > create a **New Assay Workflow** > add **Custom Assay** > load **Capture with Kinetics** > modify the parameters based on your needs and run the assay.

Suggested assay parameters (e.g., flow rate, time, LED power, etc.) are within the **heliOS** assay.

TIP

As streptavidin owns four different binding sites, multiple ligands can be captured per nanolever, leading to avidity effects when measuring multispecific analytes. In the case, consider using the conjugation approach.

For further questions, please contact the support team at support@dynamic-biosensors.com

Useful Order Numbers

Table 2. Order Numbers

| Product Name | Comment | Order No |
|---------------------------------------|----------------------------------|-------------|
| heliX[®] Adapter Chip | Chip with 2 detection spots | ADP-48-2-0 |
| 10x Passivation solution | For passivation of chip surface | SOL-PAS-1-5 |
| Regeneration solution | For regeneration of chip surface | SOL-REG-1-5 |

Contact

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Instruments and chips are engineered and manufactured in Germany.

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