

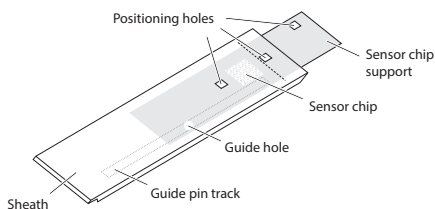
# Sensor Chip Au

## Instructions for Use

### Product description

Order code: BR100542 (Package of three sensor chips)

Storage: The use-before date applies to chips stored at +2°C to 8°C in unopened pouches.



The sensor chip is fixed to a polystyrene support sheath. Each cassette, consisting of a sensor chip and sheath assembly, is individually packed under a nitrogen atmosphere in a sealed pouch.

**Note:** For *in vitro* use only.

### Application areas

Sensor Chip Au is designed for interaction analysis in Biacore™ systems. Sensor Chip Au is a plain gold surface offering the possibility to create user-defined surface chemistries. Refer to [cytiva.com/biacore](https://www.cytiva.com/biacore) for up-dates on applications and scientific publications.

## Preparation for use

| Step | Action  |
|------|---|
| 1    | If you are working in a humid environment, allow the sealed sensor chip pouch to equilibrate at room temperature for 30 minutes in order to prevent condensation on the chip surface. |
| 2    | Prepare the Biacore instrument with running buffer. The buffer should be filtered (0.22 $\mu\text{m}$ ), and degassed for systems that do not have an integrated buffer degasser.     |
| 3    | Open the sensor chip pouch.   |

## Surface chemistry modification after docking

| Step | Action  |
|------|---|
| 1    | Ensure that the Biacore instrument is clean prior to inserting Sensor Chip Au.  |
| 2    | Protect the chip from dust particles, make sure that the sensor chip support remains fully inserted into the sheath at all times.   |
| 3    | Dock Sensor Chip Au in the instrument as described in the <i>Instrument Handbook</i> .  |
| 4    | Perform surface chemistry modification of the docked sensor chip according to the protocol under investigation. Observe instrument specifications regarding solvent resistance. |

**Note:**

*Perform surface modification as soon as possible after docking, because a clean gold surface is reactive and sensitive to adsorption of even low concentrations of impurities from the solution.*

## Surface chemistry modification prior to docking

**Note:** *This approach increases the risk of damage to the opto-interface, the IFC, the support frame and the glue which fastens the chip to the support frame. For best results, work in a dust-free environment, such as a laminar air flow (LAF) bench. Do not expose the sensor chip support frame to organic solvents or extremes of pH. The surface can be washed with ethanol.*

| Step | Action   |
|------|--|
| 1    | Slide the support frame out of the protective sheath to expose the attached chip.  |
| 2    | Locate the gold surface. The chip is coated with gold on the side that is partly covered by the polystyrene support frame. The opposite side (which is visible in its entirety) is the opto-interface side, which interfaces with the detector. This side must be kept clean and dry.  |
| 3    | Deposit reagents on the gold-coated side of the chip with a micro-pipette tip.<br><br><b>Note:</b><br><i>Do not touch the chip surface except at the corners where the tip of the pipette may be placed gently to remove liquid after incubation or washing.</i>   |
| 4    | Before replacing the support frame in the protective sheath, ensure that the chip is dry on the opto-interface side and clean from dust, lipids, oils, salt crystals etc. on both sides. Check that it remains firmly attached to the support frame by pushing gently on the corners of the chip with a plastic pipette tip. |
| 5    | Slide the support frame back into the protective sheath. Make sure to insert it in the correct orientation. The opto-interface side of the chip should be towards the labelled side of the sheath, with the white painted end of the support frame towards the opening of the sheath.  |
| 6    | Dock Sensor Chip Au in the instrument as described in the <i>Instrument Handbook</i> .<br><br><b>Note:</b><br><i>Sensor chips that are not docked in the instrument should be stored in closed containers.</i>   |

## Interaction analysis

Interaction analysis is performed as analytes in solution are injected over the user-modified surface of Sensor Chip Au.

Refer to Biacore handbooks and [cytiva.com/biacore](http://cytiva.com/biacore) for details on general experimental protocols and methodology.

## Regeneration

The type of modification performed will determine whether it is possible to regenerate the uncoated gold surface on Sensor Chip Au.

Regeneration of the immobilized ligand may be performed by selective dissociation of the bound analyte. Conditions should be chosen to achieve complete dissociation of the analyte without affecting the binding characteristics of the ligand. The choice of regeneration procedure may be limited by the stability of both the user-defined surface chemistry and the ligand.

Refer to the *Biacore Sensor Surface Handbook* for more detailed information on regeneration strategies.

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22060721 AD V:4 07/2020