

# Series S Sensor Chip PrismA Instructions for Use

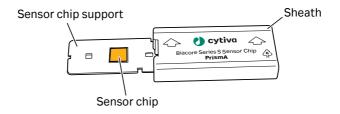
## **Product description**

Order code: 29650263 (package of one sensor chip)

29650264 (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 sensor chip support. Each cassette, consisting of a sensor chip and sheath assembly, is individually packed under a nitrogen atmosphere in a sealed pouch.

**Note:** For research use only.

## **Application areas**

Series S Sensor Chip PrismA is designed to bind human antibodies for analysis in Biacore™ systems. The surface is optimized for concentration analysis in biopharmaceutical process development, manufacturing, and quality control. Series S Sensor Chip PrismA provides a ready-to-use means for convenient determination of antibody concentration, using a calibration curve, in samples such as cell culture media and chromatography fractions.

cytiva.com 29698719 AA

Series S Sensor Chip PrismA is not recommended for kinetic analysis. Instead, use Sensor Chip Protein A or a suitable capture kit available from Cytiva.

Refer to cytiva.com/biacore to access application examples and support tools.

# Surface specificity

Series S Sensor Chip PrismA consists of a carboxymethylated dextran matrix prefunctionalized with a recombinant protein A.

The prefunctionalized molecule is the same as in MabSelect  $^{\text{TM}}$  PrismA affinity chromatography products from Cytiva, which are commonly used in development and manufacturing of the rapeutic antibodies. This recombinant variant on the surface of Series S Sensor Chip PrismA binds the heavy chain within the Fc region of antibodies from several mammalian species, most notably human antibodies of the subclasses IgG1, IgG2, and IgG4.

The protein A ligand in Series S Sensor Chip PrismA has enhanced binding affinity for the  $V_H 3$  sequence located on the variable heavy chain of the Fab region compared to Sensor Chip Protein A.

### Preparations for use

Step	Action	
1	Allow the sealed sensor chip pouch to equilibrate at room temperature for 15 to 30 minutes in order to prevent condensation on the chip surface.	
2	Prepare the Biacore instrument with running buffer.	
3	Open the sensor chip pouch. Make sure that the sensor chip support remains fully inserted into the sheath at all times.	
4	Dock the sensor chip in the instrument as described in the instructions for the respective instrument. Select $\it Custom$ as chip type.	

## Samples

Diluting the sample 1:10 in running buffer prior to analysis is usually sufficient to adjust for differences in sample matrix conditions. Samples in buffers with very low pH or high ionic strength, and cell culture samples might need a higher dilution factor.

### Run conditions

#### **Running buffer**

Series S Sensor Chip PrismA is compatible with all Cytiva running buffers used with Biacore systems.

#### **Analysis temperature**

Series S Sensor Chip PrismA is designed for use at 25°C.

#### Start-up cycles

For best assay performance, run 1 to 3 start-up cycles using sample or buffer as analyte and identical settings as for the analysis cycles.

# Concentration analysis

#### **Analysis**

Analysis is performed by injection of samples over the sensor chip surface. Analyte molecules in the injected sample bind directly to the prefunctionalized recombinant protein A. A 30 s injection of sample is typically suitable for concentration measurements in the range 1 to 50  $\mu g/mL$ . The contact time can be adjusted to suit different measuring ranges.

#### Regeneration

Regenerate Series S Sensor Chip PrismA by removing the analyte from the surface with one 60 s injection of 10 mM Glycine-HCl, pH 1.5. An alternative regeneration procedure is to run a 120 s injection of 50 mM NaOH. The regeneration solutions are available as ready-to-use Cytiva products. See following section for order codes.

Note:

A slight change in baseline between cycles is often observed during an assay. This does not impair performance.

### Related products

Buffer	Description	Package	Order code
Glycine 1.5	10 mM glycine-HCl pH 1.5	100 ml	BR-1003-54
NaOH 50	50 mM NaOH	100 ml	BR-1003-58



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