

# Getting the best out of your Biacore™ system



# A flying start

No matter what you want to get out of your interaction analysis, GE Healthcare has developed a range of tools designed specifically to make Biacore assays as easy and reliable as possible.

The complete toolbox is backed up by stringent production methods and quality control.

This brochure describes some of the benefits of Biacore consumables for rapidly getting great results. We've labeled tools with colors to indicate the application areas where the tool offers clear advantages.

Give yourself a flying start to successful Biacore analysis, and land on reliable results.



## A sensor surface for every need

*Get the best response for your particular interaction study*

## Kits to save you time and effort

*Up and running in record time with our kits and reagents*

## Buffers and solutions for convenience

*Get a quick start and feel confident in your daily work*

## Products marked with these symbols are great for:



Biotherapeutic applications



Small molecule applications



General research applications



# A sensor surface for every need

*Our extensive range of Biacore sensor surfaces enables you to study interactions involving virtually any protein and also many other biomolecules and structures, from small organic molecules up to viruses.*

## **Native ligands**

### **For full versatility: Sensor Chip CM5**



This sensor chip provides a high capacity to immobilize a wide range of ligands. You can employ a variety of coupling chemistries to exploit common functional groups such as amino, thiol, hydroxyl, carboxyl, and aldehyde groups.

### **For small molecules and fragments: Sensor Chip CM7**



Use this sensor chip when you are interested in screening and characterizing small molecules and fragments. It is especially useful when the target protein has a low concentration or is very sensitive to immobilization conditions.

### **When contaminants have a high positive charge: Sensor Chip CM4**



This sensor chip reduces unwanted binding of positively charged contaminants, and improves immobilization of negatively charged ligands. The lower capacity can also be beneficial for kinetic studies.

### **For large interaction partners: Sensor Chip CM3**



Select this sensor chip when you work with large molecules, complexes, viruses, or whole cells. The short linker chains minimize steric hindrance.

### **For multivalent or large interaction partners: Sensor Chip C1**



Choose this sensor chip when you are studying extremely bulky ligands or multivalent molecules. This chip may also be useful for experiments where dextran causes problems.

## Modified ligands, lipids or membranes

### For biotinylated ligands: Sensor Chip SA



This sensor chip carries covalently attached streptavidin to give you high affinity capture of biotinylated ligands such as proteins, peptides, nucleic acids, or carbohydrates with an orientated immobilization.

### For histidine-tagged molecules: Sensor Chip NTA



This sensor chip efficiently captures histidine-tagged recombinant proteins. This capture method allows a simple, efficient surface regeneration by EDTA.

### For proteins in a lipid monolayer: Sensor Chip HPA



This sensor chip captures lipids as a monolayer on its hydrophobic surface. It is designed to help you easily set up a model for studying membrane-associated proteins.

### For proteins in a lipid bilayer: Sensor Chip L1



This lipophilic sensor chip is designed for direct capture of lipid vesicles and liposomes whilst retaining the bilayer structure of the membrane, providing a suitable system for studying transmembrane proteins.

### For unique surface chemistries: Sensor Chip Au and SIA Kit Au



The plain gold surface of Sensor Chip Au enables you to customize the surface for your own immobilization system. SIA Kit Au provides unmounted gold surfaces with a separate chip carrier to prepare surfaces using harsh conditions.

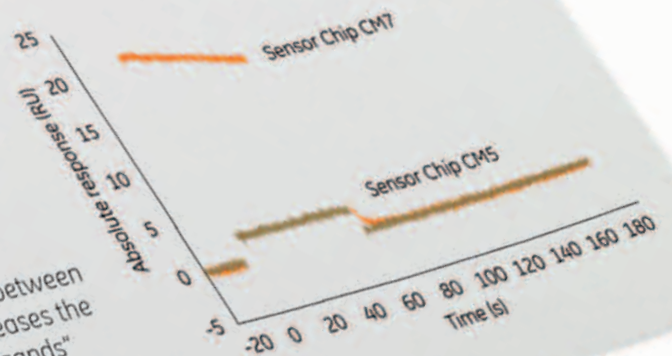
## Sensor Chip CM7

Use this sensor chip when you are interested in screening and characterizing small molecules and fragments, or analyzing proteins available only at low concentration.

Series S Sensor Chip CM7 gave a much higher signal than Series S Sensor Chip CM5 when binding the protein ECD ( $M_r = 22\ 000$ ). The two sensor chips were run in parallel and under identical conditions using two Biacore T100 instruments.

"The CM7 sensor made the difference between convincing binding and not, and increases the options when optimizing sensitive ligands"

Bruce Carrington PhD, Senior Principal Scientist  
at UCB Celltech, Slough, UK





# Kits save you time and effort

*Our capture kits significantly reduce the time and effort you need to spend on developing your assay. In addition, our coupling kits include selected reagents for covalent attachment of your ligand.*

## ***Biacore capture kits cut assay development and add consistency***

The capture approach enables orientated immobilization of ligand from a complex solution. Biacore capture kits save you time and effort by eliminating most of the assay development work. They also provide consistent capture levels which are important, for example, when studying panels of antibodies.

Our range gives you a number of options for capturing the most common antibodies and tags. All kits contain validated, high-quality reagents and optimized protocols.

### **Rapid selection of human Fab fragments: Human Fab Capture Kit**



This capture kit provides reagents and protocols for screening and characterization of human Fab antibody fragments, using a Fab binder with broad specificity and stable, high capture efficiency.

### **To capture human antibodies: Human Antibody Capture Kit**



This capture kit provides you with reagents and protocols for convenient capture of human or humanized IgG antibodies, providing rapid, consistent analyses with minimal assay development.

### **For mouse IgG antibodies: Mouse Antibody Capture Kit**



This capture kit provides you with reagents and protocols for convenient capture of mouse IgG antibodies, providing rapid, consistent analyses with minimal assay development.

### **Capture of histidine-tagged molecules: His Capture Kit**



This kit enables capture by an anti-histidine antibody, as a complement to capture by metal-chelation on Sensor Chip NTA.

### **Directed capture of GST fusion proteins: GST Capture Kit**



This capture kit provides anti-GST antibody and reagents for the site-directed capture of GST fusion proteins.

### **Extended experimental range: Biotin CAPture Kit**



Biotin CAPture Kit provides a method for reversible capture of biotinylated molecules and standardized regeneration. This enables work with unstable ligands and allows analysis of different biotinylated ligands with the same sensor chip.

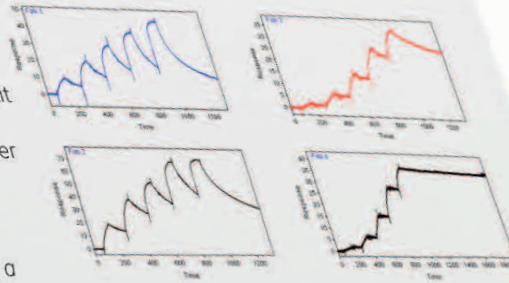
# Biotin CAPture Kit

With this kit you can reversibly capture biotinylated molecules and standardize regeneration, simplifying your work with unstable ligands and different biotinylated ligands.

The study involved binding of antibody Fab fragments to TNF-alpha, a non-covalent trimer that falls apart during regeneration of the sensor surface. By using Biotin CAPture Kit each Fab fragment could be tested using biotinylated TNF-alpha freshly captured after regeneration, thereby providing more consistent results.

"We found the kit easy to use and it was a great method for regenerating streptavidin surfaces."

Dr David Myszka, University of Utah



## Coupling kits for a multitude of molecules

When your ligand is covalently attached to the sensor surface, regeneration does not remove the ligand. This can help to reduce the consumption of precious ligands. Also, covalent immobilization normally results in very stable attachment of the ligand to the surface.

### Coupling via primary amine groups: Amine Coupling Kit

Amine coupling chemistry is the most widely-applicable approach for attaching biomolecules covalently to the surface.



### Defined orientation through thiol/disulfide exchange: Thiol Coupling Kit

You can refine the orientation of your protein by using thiol groups instead of amine groups, and you may even achieve more efficient coupling. Disulfide groups can also be introduced, which is useful for acidic proteins. This kit contains all the reagents you need for coupling.



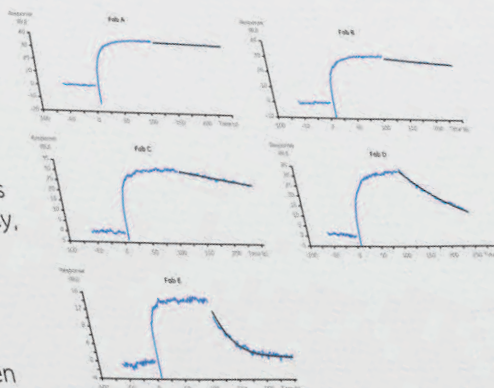
# Human Fab Capture Kit

Human Fab Capture Kit provides you with detailed kinetics-based analysis of binding properties early in your screening process.

Stable binders were quickly selected and ranked by capturing Fab fragments on the immobilized Human Fab Binder, injecting the antigen, and measuring the interaction using Biacore A100.

"The test demonstrated many advantageous properties of the kit - good capture efficiency, great stability, excellent regeneration, low cross-reactivity to other proteins."

Jan Jaehrling, MorphoSys AG, Munich, Germany, who kindly supplied the antigen and Fab samples



# Buffers and solutions for convenience

*Buffers and solutions developed and verified to work in Biacore systems get you up and running fast*

## **Immobilization buffers**

With convenience in mind right from the start, GE Healthcare provides a range of immobilization buffers for the most common ligand types and immobilization conditions.

## **Sample preparation**

Components in complex sample matrices such as plasma, serum, or cell lysates may bind non-specifically to the dextran surface of sensor chips, complicating the analysis of specific binding interactions. You can minimize these effects by using NSB Reducer, which is simply added to the sample before injection.

## **Running buffers**

The recommended running buffer for your assay depends on the type of molecules used in the interaction, which assay will be run, and the type of sensor chip used. Our range of running buffers provides you with both convenience and quality, supplied in ready-to-use or concentrated form.

## **Regeneration buffers**

Regeneration is the step where bound analyte is removed from the sensor chip after analysis, without affecting the activity of the immobilized ligand. In many systems, conditions that remove analyte tend to reduce ligand activity, and finding the optimal conditions is an essential part of assay development.

GE Healthcare has developed a series of regeneration buffers that meets the majority of needs. We have also simplified your search for suitable regeneration solutions by providing a Regeneration Scouting Kit, which includes small volumes of a range of regeneration solutions together with instructions giving clear guidance in the scouting process.



# Applications support

***GE Healthcare supports your Biacore interaction studies with comprehensive applications support and training***

## **Support from the start**

As a Biacore user, you gain direct access to the Biacore support site with useful links and downloads for application-specific methods and technical tips. For example, dry-run simulation with BIASimulation software helps you iron out the most common assay setup problems without consuming valuable reagents.

## **Literally informed**

Our website gives you direct access to protocols, Application Notes, and abstracts of peer-reviewed papers citing Biacore. You can also search our extensive library of online help articles.

## **Learning at a higher level**

The training portal supports you and your colleagues with a comprehensive range of learning opportunities. Teaching materials such as kits, courses, and handbooks are available.

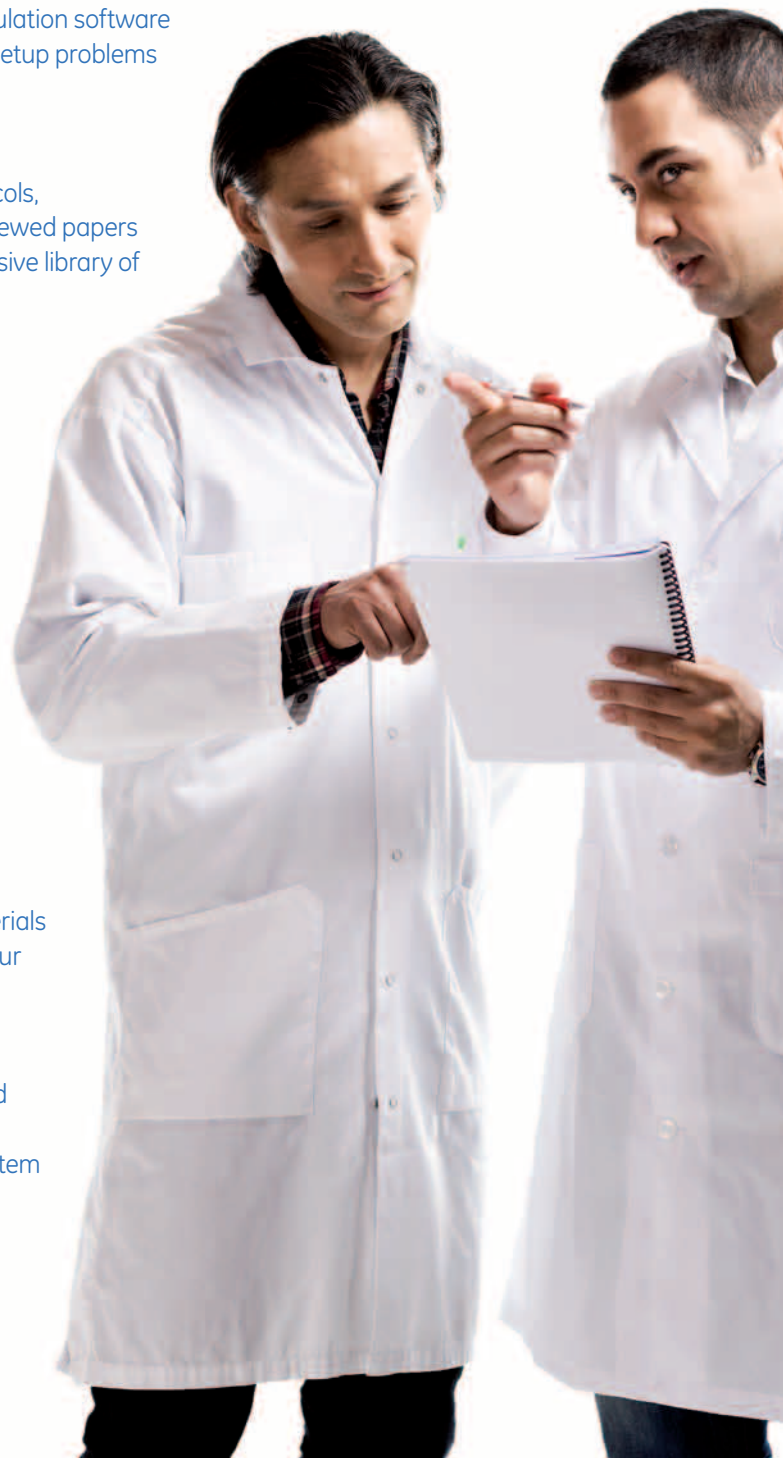
*E-learning courses* - learn online at your convenience, from the basics to learning in detail about how to measure kinetics and affinity.

*Classroom courses* - take practical and theoretical courses with personal support and comprehensive course literature.

*Educational Lecture Packages* - support materials for your own 1 to 2 day training course on your premises.







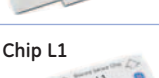


## **Get the best out of Biacore**

By exploiting the wealth of knowledge gained from years of experience in Biacore systems, you'll be getting the best out of your own system in no time at all.














# Ordering Information

## Sensor chips

Series S sensor chips for Biacore 4000, Biacore A100, Biacore T200, Biacore T100 and Biacore S51			
Product name	Description	Quantity	Order code
<b>Series S Sensor Chip CM5</b> 	The most versatile chip available — the first choice for immobilization via -NH <sub>2</sub> , -SH, -CHO, -OH or -COOH groups.	Pack of 3	<b>BR-1005-30</b>
<b>Series S Sensor Chip CM7</b> 	Use to study interactions involving small molecules and when achieving the required immobilization level is a challenge.	Pack of 1	<b>28-9538-28</b>
<b>Series S Sensor Chip CM4</b> 	Use when sample contaminants have a high positive charge.	Pack of 3	<b>BR-1005-34</b>
<b>Series S Sensor Chip CM3</b> 	Use when the interaction partner in solution is very large.	Pack of 3	<b>BR-1005-36</b>
<b>Series S Sensor Chip C1</b> 	Use when the interaction partner in solution is multivalent or very large.	Pack of 3	<b>BR-1005-35</b>
<b>Series S Sensor Chip NTA</b> 	Use for immobilization of histidine-tagged molecules. (Format compatible with Biacore S51 but no system support). Use with NTA Reagent Kit (28-9950-43) containing nickel solution and regeneration solution.	Pack of 3 Pack of 1	<b>BR-1005-32</b> <b>28-9949-51</b>
<b>Series S Sensor Chip SA</b> 	Use for immobilization of biotinylated peptides, proteins, nucleic acids or carbohydrates.	Pack of 3	<b>BR-1005-31</b>
<b>Series S Sensor Chip L1</b> 	Use to incorporate a molecule into a lipid bilayer.	Pack of 3	<b>BR-1005-38</b>
<b>Series S Sensor Chip HPA</b> 	Use when working with model membrane systems. (Format compatible with Biacore S51 but no system support).	Pack of 3	<b>BR-1005-33</b>
<b>SIA Kit Au</b> 	Contains unmounted gold surfaces and separate chip supports for easy assembly after surface coating. This allows the use of a wide variety of coating techniques, including those using harsh conditions that the chip carrier would not withstand. Not recommended for use with Biacore 4000, Biacore A100, or Biacore S51.	Kit includes: 10 sensor surfaces Au 16 adhesive strips  For classic and Series S formats: 10 sensor chip supports 1 protective sheath 1 assembly unit	<b>BR-1004-05</b>











### Sensor chips for other systems

Product name	Description	Quantity	Order code
<b>Sensor Chip CM5</b> 	The most versatile chip available — the first choice for immobilization via -NH <sub>2</sub> , -SH, -CHO, -OH, or -COOH groups.	Pack of 3 Pack of 1	BR-1000-12 BR-1003-99
<b>Sensor Chip CM7</b> 	For studies of small molecule interactions and if it is difficult to reach the necessary immobilization level.	Pack of 1	28-9573-32
<b>Sensor Chip CM4</b> 	Use when sample contaminants have a high positive charge.	Pack of 3	BR-1005-39
<b>Sensor Chip CM3</b> 	Use when the interaction partner in solution is very large.	Pack of 3	BR-1005-41
<b>Sensor Chip C1</b> 	Use when the interaction partner in solution is multivalent or very large.	Pack of 3	BR-1005-40
<b>Sensor Chip NTA</b> 	Use for immobilization of histidine-tagged molecules. Use with NTA Reagent Kit (28-9950-43) containing nickel solution and regeneration solution.	Pack of 3 Pack of 1	BR-1000-34 BR-1004-07
<b>Sensor Chip SA</b> 	Use for immobilization of biotinylated peptides, proteins, nucleic acids, or carbohydrates.	Pack of 3 Pack of 1	BR-1000-32 BR-1003-98
<b>Sensor Chip L1</b> 	Use to incorporate a molecule into a lipid bilayer.	Pack of 3 Pack of 1	BR-1005-43 BR-1005-58
<b>Sensor Chip HPA</b> 	Use when working with model membrane systems.	Pack of 3 Pack of 1	BR-1000-30 BR-1004-06
<b>Sensor Chip Au</b> 	Untreated gold surfaces for use with a wide variety of coating techniques.	Pack of 3	BR-1005-42
<b>SIA Kit Au</b> 	Contains unmounted gold surfaces and separate chip supports for easy assembly after surface coating. This allows the use of a wide variety of coating techniques, including those using harsh conditions that the chip carrier would not withstand.	Kit includes: 10 sensor surfaces Au 16 adhesive strips For classic and Series S formats: 10 sensor chip supports 1 protective sheath 1 assembly unit	BR-1004-05









### Biacore Flexchip affinity chips

Product name	Description	Quantity	Order code
<b>Gold Affinity Chip Set</b>	Unmodified gold-coated chips.	4 × chips, 4 × pre-gasketed windows	BR-1007-00
<b>NeutrAvidin® Affinity Chip Set</b>	Chips designed for spotting biotinylated materials that bind to NeutrAvidin.	4 × chips, 4 × pre-gasketed windows	BR-1007-13
<b>Protein A/G Affinity Chip Set</b>	Chips designed for spotting antibodies or other materials that bind to Protein A or Protein G.	4 × chips, 4 × pre-gasketed windows	BR-1007-12

## Reagents, buffers and solutions

Immobilization reagents			
Product name	Description	Contents	Order code
<b>Amine Coupling Kit</b> 	Reagents for covalent immobilization of molecules carrying a primary amine group. Sufficient for 30–50 immobilizations.	750 mg 1-ethyl-3-(3-dimethylamino-propyl)carbodiimide hydrochloride (EDC), 115 mg N-hydroxysuccinimide (NHS), 10.5 ml 1.0 M ethanolamine-HCl pH 8.5	<b>BR-1000-50</b>
<b>Amine Coupling Kit, type 2</b> For Biacore 4000, Biacore A100 and Biacore S51 	Reagents for covalent immobilization of molecules carrying a primary amine group. Sufficient for 60–80 immobilizations.	750 mg 1-ethyl-3-(3-dimethylamino-propyl)carbodiimide hydrochloride (EDC), 115 mg N-hydroxysuccinimide (NHS), 2 × 10.5 ml 1.0 M ethanolamine-HCl pH 8.5	<b>BR-1006-33</b>
<b>Thiol Coupling Kit</b> 	Reagents and coupling solutions for performing molecule and/or surface thiol couplings. Contains reagents for 50 surface thiol immobilizations, 18 thiol immobilizations or 22 PDEA ligand modifications.	90 mg cystamine dihydrochloride, 61 mg L-cysteine, 154 mg 1,4-dithioerythritol (DTE), 10.5 ml 1.0 M ethanolamine-HCl pH 8.5, 750 mg 1-ethyl-3-(3-dimethylaminopropyl) carbodiimide hydrochloride (EDC), 115 mg N-hydroxysuccinimide (NHS), 100 ml 0.1 M 2-(4-morpholino) ethanesulfonic acid (MES) pH 5.0, 100 mg 2-(2-pyridinyldithio) ethaneamine hydrochloride (PDEA), 25 ml 0.1 M sodium acetate 1.0 M, sodium chloride pH 4.0, 25 ml 0.15 M sodium borate pH 8.5	<b>BR-1005-57</b>
<b>PDEA Thiol Coupling Reagent</b> 	Reagent for immobilization of thiol-containing molecules. Reactive disulfide groups are introduced onto carboxyl groups of either the sensor chip matrix or the ligand <sup>§</sup> .	100 mg 2-(2-pyridinyldithio) ethaneamine hydrochloride (PDEA)	<b>BR-1000-58</b>
<b>Acetate 4.0</b> 	Immobilization buffer, 10 mM sodium acetate pH 4.0	1 × 50 ml	<b>BR-1003-49</b>
<b>Acetate 4.5</b> 	Immobilization buffer, 10 mM sodium acetate pH 4.5	1 × 50 ml	<b>BR-1003-50</b>
<b>Acetate 5.0</b> 	Immobilization buffer, 10 mM sodium acetate pH 5.0	1 × 50 ml	<b>BR-1003-51</b>
<b>Acetate 5.5</b> 	Immobilization buffer, 10 mM sodium acetate pH 5.5	1 × 50 ml	<b>BR-1003-52</b>
<b>Borate 8.5</b> 	Immobilization buffer, 10 mM disodium tetraborate pH 8.5, 1 M NaCl	1 × 50 ml	<b>BR-1003-53</b>
<b>Flexchip Blocking Buffer 10X</b> 	Concentrated solution. Minimizes non-specific binding on an affinity chip.	1 × 250 ml Proteinaceous solution (protein of mammalian origin — not BSA) in phosphate buffered saline (pH 7.4), containing the antimicrobial agent, KATHON®	<b>BR-1007-08</b>






<sup>§</sup> The use of these products in Biacore systems requires the Amine Coupling Kit with Sensor Chip CM5, CM4, CM3 or C1.

Capture reagents			
Product name	Description	Contents	Order code
<b>His Capture Kit</b> 	Reagents for capture of histidine-tagged molecules in biomolecular interaction studies. Sufficient for 10 immobilizations and up to 1000 regenerations.	Anti-histidine antibody, 1 mg/ml in 0.15 M NaCl, 50 µl Immobilization buffer, 1.2 ml Regeneration solution, 100 ml	<b>28-9950-56</b>
<b>GST Capture Kit</b> 	Reagents for site-directed affinity capture of GST fusion proteins. Facilitates the study of interactions between the fusion protein and its binding partners. Sufficient for 20 immobilizations and up to 600 regenerations <sup>1</sup> .	Goat anti-GST antibody, 0.6 mg/ml in 0.15 M NaCl, 100 µl Positive control: Recombinant GST ( <i>Schistosoma japonicum</i> ), 0.2 mg/ml in 100 µl HBS-EP Immobilization buffer, 5 ml Regeneration solution, 70 ml	<b>BR-1002-23</b>
<b>Biotin CAPture Kit</b> 	Reagents and sensor chip for reversible capture of biotinylated molecules in biomolecular interaction studies. For Biacore X100, Biacore C, Biacore 3000, Biacore 2000, Biacore 1000, Biacore Upgrade, Biacore X and Biacore J. Sufficient for 80-140 regenerations depending on system.	One Sensor Chip CAP Biotin CAPture Reagent, 50 µg/ml in HBS-EP buffer, 3.4 ml Regeneration Stock 1, 16 ml Regeneration Stock 2, 6 ml	<b>28-9202-33</b>
<b>Biotin CAPture Kit, Series S</b> 	Reagents and sensor chip for reversible capture of biotinylated molecules in biomolecular interaction studies. Sufficient for 100 regenerations in Biacore T200 and Biacore T100, and 20 regenerations in Biacore 4000 and Biacore A100.	One Series S Sensor Chip CAP Biotin CAPture Reagent, 50 µg/ml in HBS-EP buffer, 3.4 ml Regeneration Stock 1, 16 ml Regeneration Stock 2, 6 ml	<b>28-9202-34</b>
<b>NTA Reagent Kit</b> 	Reagents for Sensor Chip NTA, which is used to capture histidine-tagged molecules in biomolecular interaction analysis.	50 ml 0.5 mM NiCl <sub>2</sub> 100 ml 350 mM EDTA	<b>28-9950-43</b>
<b>Mouse Antibody Capture Kit</b> 	Reagents for capture of mouse IgG antibodies in biomolecular interaction analyses. Sufficient for 10 immobilizations and 1000 regenerations <sup>1</sup> .	Anti-Mouse IgG antibodies 1 mg/ml in 0.15 M NaCl, 50 µl Immobilization buffer, 1 ml Regeneration solution, 95 ml	<b>BR-1008-38</b>
<b>Human Antibody Capture Kit</b> 	Reagents for capture of human or humanized IgG antibodies in biomolecular interaction analyses. Sufficient for 10 immobilizations and 1000 regenerations <sup>1</sup> .	Anti-Human IgG (Fc) antibody 0.5 mg/ml in 0.15 M NaCl, 50 µl Immobilization buffer, 1 ml Regeneration solution, 95 ml	<b>BR-1008-39</b>
<b>Human Fab Capture Kit</b> 	Reagents for capture of human Fab antibody fragments in biomolecular interaction analyses. Sufficient for 10 immobilizations and 1000 regenerations <sup>1</sup> .	Human Fab Binder, 0.5 mg/ml in 0.15 M NaCl, 50 µl Immobilization buffer, 2 × 1.2 ml Regeneration solution, 2 × 90 ml	<b>28-9583-25</b>


<sup>1</sup> The use of these products in Biacore systems requires the Amine Coupling Kit with Sensor Chip CM5, CM4, CM3 or C1.





## Reagents, buffers and solutions






Regeneration solutions			
Product name	Description	Contents	Order code
<b>Regeneration Scouting Kit</b> 	Contains 10 solutions, mostly ready to use, for developing regeneration conditions. Instructions for optimal regeneration scouting are included.	11 ml ethylene glycol (p.a.) 11 ml 10 mM glycine-HCl pH 1.5 11 ml 10 mM glycine-HCl pH 2.0 11 ml 10 mM glycine-HCl pH 2.5 11 ml 10 mM glycine-HCl pH 3.0 11 ml 4.0 M magnesium chloride 11 ml 0.2 M sodium hydroxide 11 ml 0.5% sodium dodecyl sulphate (SDS) 11 ml 5.0 M NaCl 20 ml 10% Surfactant P20	<b>BR-1005-56</b>
<b>Glycine 1.5</b> 	10 mM glycine-HCl pH 1.5	1 × 100 ml	<b>BR-1003-54</b>
<b>Glycine 2.0</b> 	10 mM glycine-HCl pH 2.0	1 × 100 ml	<b>BR-1003-55</b>
<b>Glycine 2.5</b> 	10 mM glycine-HCl pH 2.5	1 × 100 ml	<b>BR-1003-56</b>
<b>Glycine 3.0</b> 	10 mM glycine-HCl pH 3.0	1 × 100 ml	<b>BR-1003-57</b>
<b>NaOH 50</b> 	50 mM NaOH	1 × 100 ml	<b>BR-1003-58</b>

## Running buffers








Product name	Description	Contents	Order code
<b>HBS-EP</b> For Biacore C, Biacore 3000, Biacore 2000, Biacore 1000, Biacore Upgrade, Biacore X, and Biacore J. 	General purpose buffer, degassed and ready to use 0.01 M HEPES pH 7.4, 0.15 M NaCl, 3 mM EDTA, 0.005% v/v Surfactant P20	6 × 200 ml	<b>BR-1001-88</b>
<b>HBS-P</b> For Biacore C, Biacore 3000, Biacore 2000, Biacore 1000, Biacore Upgrade, Biacore X, and Biacore J. 	Degassed and ready to use 0.01 M HEPES pH 7.4, 0.15 M NaCl, 0.005% v/v Surfactant P20	6 × 200 ml	<b>BR-1003-68</b>
<b>HBS-N</b> For Biacore C, Biacore 3000, Biacore 2000, Biacore 1000, Biacore Upgrade, Biacore X, and Biacore J. 	Degassed and ready to use 0.01 M HEPES pH 7.4, 0.15 M NaCl	6 × 200 ml	<b>BR-1003-69</b>
<b>HBS-EP+ 10X</b> For Biacore 4000, Biacore A100, Biacore T200, Biacore T100, and Biacore X100 	General purpose buffer. Concentrated stock solution containing 0.1 M HEPES, 1.5 M NaCl, 30 mM EDTA and 0.5% v/v Surfactant P20. Will yield pH 7.4 when diluted 10X.	1 × 1000 ml 4 × 50 ml	<b>BR-1006-69</b> <b>BR-1008-26</b>
<b>HBS-P+ 10X</b> For Biacore 4000, Biacore A100, Biacore T200, Biacore T100, and Biacore X100 	Concentrated stock solution containing 0.1 M HEPES, 1.5 M NaCl and 0.5% v/v Surfactant P20. Will yield pH 7.4 when diluted 10X.	1 × 1000 ml 4 × 50 ml	<b>BR-1006-71</b> <b>BR-1008-27</b>
<b>HBS-N 10X</b> For Biacore 4000, Biacore A100, Biacore T200, Biacore T100, and Biacore X100 	Concentrated stock solution containing 0.1 M HEPES and 1.5 M NaCl. Will yield pH 7.4 when diluted 10X.	1 × 1000 ml 4 × 50 ml	<b>BR-1006-70</b> <b>BR-1008-28</b>
<b>HBS-N 10X</b> For Biacore 4000, Biacore A100, Biacore T200, Biacore T100, and Biacore X100 	Concentrated stock solution containing 0.1 M HEPES and 1.5 M NaCl. Will yield pH 7.4 when diluted 10X.	1 × 1000 ml 4 × 50 ml	<b>BR-1006-70</b> <b>BR-1008-28</b>
<b>PBS-P+ 10X</b> Supports the recommendations for small molecule assays in Biacore systems. For all systems except Biacore Flexchip. 	Concentrated stock solution containing 0.2 M phosphate buffer with 27 mM KCl, 1.37 M NaCl and 0.5% Surfactant P20 (Tween 20). Will yield pH 7.4 when diluted 10X and supplemented with 2% DMSO.	1 × 1000 ml	<b>28-9950-84</b>
<b>PBS 10X</b> For all systems except Biacore Flexchip 	Concentrated stock solution containing 0.1 M phosphate buffer with 27 mM KCl and 1.37 M NaCl. Will yield pH 7.4 when diluted 10X and supplemented with 5% DMSO.	1 × 1000 ml	<b>BR-1006-72</b>










## Reagents, buffers and solutions

Additives			
Product name	Description	Contents	Order code
<b>NSB Reducer</b> 	Reduces non-specific binding to carboxymethyl dextran sensor surfaces. Sufficient for approximately 650 samples.	Carboxymethyl dextran sodium salt (10 mg/ml) in 0.15 M NaCl containing 0.02% sodium azide (NaN <sub>3</sub> ), 10 ml	<b>BR-1006-91</b>
<b>Surfactant P20</b> 	Polyoxyethylenesorbitan, a non-ionic surfactant recommended for inclusion in buffers. Tested for peroxides and carbonyls. Supplied as a sterile filtered 10% solution in water.	1 × 20 ml	<b>BR-1000-54</b>

Maintenance kits			
Product name	Description	Contents	Order code
<b>BIAmaintenance Kit</b> For Biacore X100, Biacore 3000, Biacore 2000, Biacore 1000, Biacore Upgrade, Biacore X, and Biacore J 	Convenient kit for proper instrument maintenance. Sufficient for 6 months normal usage. HBS-EP 10X buffer (BR-1008-26) for Biacore X100, or HBS-EP buffer (BR-1001-88) for the other systems should be ordered separately.	BIAtest solution (65 ml) BIAnormalizing solution (30 ml) BIAdesorb solution 1 (90 ml) BIAdesorb solution 2 (90 ml) BIAdisinfectant solution (10 ml) Sensor Chip Maintenance	<b>BR-1006-66</b>
<b>Biacore Maintenance Kit</b> For Biacore C 	Convenient kit for proper instrument maintenance. Sufficient for 6 months normal usage. Additional HBS-EP buffer (BR-1001-88) should be ordered separately.	BIAtest solution (65 ml) BIAnormalizing solution (30 ml) BIAdesorb solution 1 (90 ml) BIAdesorb solution 2 (90 ml) BIAdisinfectant solution (10 ml) HBS-EP buffer (200 ml) Sensor Chip Maintenance Sensor Chip System Check Vials and caps	<b>BR-1006-67</b>
<b>Biacore Maintenance Kit, type 2</b> For Biacore 4000, Biacore A100, Biacore T200, Biacore T100, and Biacore S51 	Convenient kit for proper instrument maintenance. Sufficient for 3 – 4 months (Biacore T200, Biacore T100, Biacore S51) or 1 – 2 months (Biacore 4000, Biacore A100) normal usage. Additional HBS-N buffer (BR-1006-70) should be ordered separately.	BIAtest solution with HBS-N (65 ml) BIAnormalizing solution (90 ml) BIAdesorb solution 1 (2 × 95 ml) BIAdesorb solution 2 (2 × 95 ml) BIAdisinfectant solution (3 × 10 ml) HBS-N buffer 10X (50 ml) Sensor Chip Maintenance	<b>BR-1006-51</b>
<b>Desorb Kit</b> 	For cleaning the flow system of Biacore Flexchip. Sufficient for 2.5 months of normal usage.	BIAdesorb solution 1 (500 ml) BIAdesorb solution 2 (500 ml)	<b>BR-1008-23</b>
<b>Flexchip Test Solution Kit</b> 	For checking system performance.	100 ml of Flexchip Test Solution 1 100 ml of Flexchip Test Solution 2	<b>BR-1007-24</b>

## Accessories

Vials				
Product name		Description	Contents	Order code
Glass Vials, Ø 9 mm		1.8 ml borosilicate vials	600 vials	BR-1002-07
Autosampler Vial Kit, Ø 9 mm		Glass vials, crimp caps and septa	50 of each	BR-1000-11
Glass Vials, Ø 16 mm		4.0 ml borosilicate screw top glass vials	500 vials	BR-1002-09
Plastic Vials, Ø 7 mm		0.8 ml rounded polypropylene microvials	1000 vials	BR-1002-12
Plastic Vials, Ø 11 mm		1.5 ml polypropylene vials with wide opening that allows a pipette to reach the bottom	500 vials	BR-1002-87
Plastic Vials, Ø 15 mm		4.0 ml polypropylene vials	1000 vials	BR-1006-54
Plastic Vials and Caps, Ø 11 mm		2.0 ml polypropylene screw top vials, screw caps with o-ring seal <b>The screw caps are only to be used for storage, not to be used in the instrument.</b>	500 vials, 500 caps	BR-1002-14
Flexchip Sample Vials		5.0 ml polypropylene vials	25 vials	BR-1007-06

Caps				
Product name		Description	Contents	Order code
Crimp Caps and Septa, 9 mm		Penetrable septa	500 caps with septa	BR-1002-08
Caps and Septa, 16 mm		Polypropylene screw caps and high quality silicone/PTFE septa. To be resealed after use.	500 caps and 500 septa	BR-1002-11
Caps, 16 mm		Polyethylene snap caps <b>These caps are only to be used for storage (together with BR-1002-09), not to be used in the instrument.</b>	500 caps	BR-1002-10
Caps, 7 mm		Thin polyethylene snap caps	1000 caps	BR-1002-13
Rubber Caps		Penetrable cap made of Kraton™ G (SEBS). Air tight after penetration.	400 caps	BR-1002-86
Rubber Caps, type 2		Penetrable cap made of Kraton G (SEBS). <b>Ventilated</b>	400 caps	BR-1004-11
Rubber Caps, type 3		Penetrable cap made of Kraton G (SEBS). <b>Ventilated</b>	600 caps	BR-1005-02
Rubber Caps, type 4		Penetrable cap made of Kraton G (SEBS). Air tight after penetration.	600 caps	BR-1005-55
Rubber Caps, type 5		Penetrable cap made of Kraton G (SEBS). <b>Ventilated</b>	400 caps	BR-1006-55

## Accessories and compatibilities

Sample and reagent racks	
Product name	Order code
<b>Reagent Rack, type 1</b> for Biacore T200, Biacore T100, and Biacore S51	BR-1004-81
<b>Reagent Rack, type 2</b> for Biacore T200, Biacore T100, and Biacore S51	BR-1004-82
<b>Sample and Reagent Rack, type 1</b> for Biacore T200 and Biacore T100	BR-1006-53

<b>Thermo Rack A</b> for Biacore 3000 / 2000 / 1000 / BIAcore	BR-1001-36
<b>Thermo Rack B</b> for Biacore 3000 / 2000 / 1000 / BIAcore	BR-1001-37
<b>Thermo Rack C</b> for Biacore 3000 / 2000 / 1000 / BIAcore	BR-1001-38
<b>Thermo Rack F</b> for Biacore C	BR-1003-36

<b>Reagent Rack A</b> for Biacore 3000	BR-1003-80
<b>Reagent Rack B</b> for Biacore C	BR-1004-12
<b>Reagent Rack C</b> for Biacore C	BR-1004-13

<b>Biacore X100 Sample and Reagent Rack</b> for Biacore X100	BR-1007-99
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Additional information		
No. of vials in rack	Vial type	Cap type
20 × 11 mm	BR-1002-87	BR-1004-11
9 × 16 mm 24 × 7 mm	BR-1002-09 BR-1002-12	BR-1004-11 BR-1005-02
45 × 7 mm 24 × 11 mm	BR-1002-12 BR-1002-87	BR-1005-02 BR-1004-11
9 × 16 mm	BR-1006-54 or BR-1002-09	BR-1006-55 BR-1004-11

5 × 16 mm	BR-1002-09	BR-1002-11 or BR-1002-86
12 × 9 mm	BR-1002-07	BR-1002-08 or BR-1005-55
40 × 7 mm	BR-1002-12	BR-1002-13 or BR-1005-55
60 × 9 mm	BR-1002-07	BR-1002-08 or BR-1005-55
24 × 11 mm	BR-1002-14 or BR-1002-87	BR-1002-86
6 × 16 mm 18 × 11 mm	BR-1002-09 BR-1002-14 or BR-1002-87	BR-1004-11 BR-1004-11

4 × 16 mm	BR-1002-09	BR-1002-11 or BR-1002-86
4 × 11 mm	BR-1002-14 or BR-1002-87	BR-1002-86
6 × 16 mm 1 × 11 mm 2 × 7 mm	BR-1002-09 BR-1002-14 or BR-1002-87 BR-1002-12	BR-1004-11 BR-1004-11 BR-1005-02
20 × 7 mm	BR-1002-12	BR-1005-02

15 × 11 mm 1 × 15 mm	BR-1002-87 BR-1006-54	BR-1004-11 No cap
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**Biacore 4000 and Biacore A100** — racks and caps are not required.

**Biacore X, Biacore J and BIAlite** — use any of the vials and caps listed.

**Biacore Flexchip** — use only BR-1007-06 Biacore Flexchip Sample Vials.



Miscellaneous																
Product name	Description	Order code	<table border="1"> <tr> <td>Flexchip</td> <td>4000</td> <td>A100</td> <td>T200</td> <td>T100</td> <td>X100</td> <td>X</td> <td>S51</td> <td>J</td> <td>3000</td> <td>2000</td> <td>1000</td> <td>C</td> </tr> </table>	Flexchip	4000	A100	T200	T100	X100	X	S51	J	3000	2000	1000	C
Flexchip	4000	A100	T200	T100	X100	X	S51	J	3000	2000	1000	C				
Microplate 384-well	100 × polystyrene microplates	BR-1005-05	• • • • • •													
Microplate Foil (384-well)	100 × self-adhesive, transparent plastic foils, for polystyrene and polypropylene microplates	BR-1005-77	• • • • • •													
Microplate 96-well	100 × polystyrene microplates	BR-1005-03	• • • • • • • • • • • •													
Microplate Foil (96-well)	100 × self-adhesive, transparent plastic foils, for polystyrene and polypropylene microplates	28-9758-16	• • • • • • • • • • • •													
96-well Microplates and Foils	50 × polystyrene microplates and aluminum foils	BR-1003-83	• • • • • •													
Microplate Cover	1 × cover used with aluminum foils to shield light-sensitive samples in microplates	BR-1004-20	• • • • • •													
Reagent Plate and Foil	100 × 24-well disposable reagent plates with self-adhesive, transparent plastic foils	BR-1006-08	• •													
Rack Tray	1 × tray for holding reagent rack and microplate	BR-1004-83	• • • • • •													
Rack Tray, type 3	1 × tray for holding reagent rack and microplate	BR-1006-09	• •													
Chip Assembly Tool	Used to affix a pre-gasketed window to an affinity chip to create a flow cell	BR-1007-09	•													
Bottle HDPE, 1000 ml	1 × high-density polyethylene (HDPE) bottle for holding buffers	BR-1007-07	•													
Bottle, 2000 ml	1 × borosilicate screw top glass bottle and polypropylene screw cap with GL 45 thread. Use for holding buffer or waste	BR-1004-88	• • • • • •													
Bottle, 1000 ml	As above	BR-1004-84	• • • • • •													
Bottle, 500 ml	As above	BR-1000-92	• • • • • •													
Bottle, 250 ml	As above	BR-1004-80	• • • • • •													
Bottle Cap Assembly	1 × polypropylene screw cap adapted for tubing insertion. For use with bottle BR-1000-92	BR-1000-93	• • • • • •													

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