

Biacore 3000

Biacore 3000 (Fig 1) is an established, label-free system for detailed studies of biomolecular interactions. The system delivers comprehensive characterization of the interaction, answers questions about the rate constants, affinity, specificity, and determines the active concentration of components. The unique ability to recover and transfer interaction partners directly to MALDI targets for identification and further characterization makes the system highly applicable to fast identification of unknown interactants.

- Simplify and accelerate analysis by using wizard driven method development
- Retrieve good quality, real time interaction data that enables kinetic characterization, affinity determinations as well as detection of weak or transient binders.
- Recover and characterize interaction partners using MALDI MS interface
- Process up to 192 samples in unattended runs

An optional GxP package and GE Healthcare Validation GxP Services supports Biacore 3000 operation in compliance with regulatory demands.

Main applications

The proven performance and versatility of Biacore 3000 enables a large range of biomolecular interaction studies.

- Perform protein identification and analysis of protein function
- Elucidate disease mechanisms by characterizing native or recombinant protein interactions
- Define potential drug targets and diagnostic markers



Fig 1. Biacore 3000 system.

Analyte recovery and integration with mass spectrometry

Surface-bound analyte can be recovered in high concentration in a defined volume of regeneration solution. Using the Analyte Recovery Wizard (Fig 2), MS-compatible buffer is injected into the system and the sample delivered to either a vial or a MALDI target (Fig 3). This recovery functionality and design offer integration with mass spectrometry and high capacity recovery of samples of interest.

- Automated recovery functionality is wizard supported to simplify and improve efficiency of recovery
- Analyte recovery optimized for low volume elution
- Assays optimized to recover captured materials bound on the chip surface in a state suitable for further analysis such as MALDI-MS
- Washing procedures optimized to minimize carry over from chemical substances and other proteins



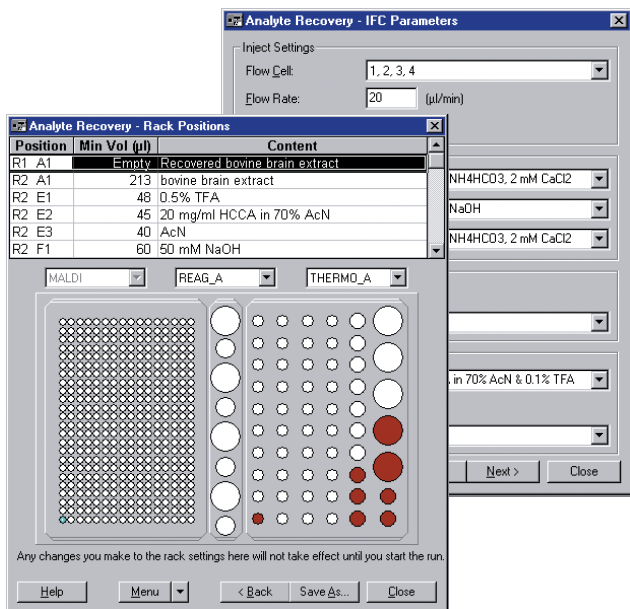


Fig 2. Analyte recovery wizard.



Fig 3. Direct deposition to MALDI target.

Technical specifications

Sample handling	automated sample loading and injection
Molecular weight detection	>180 Da
Analytical performance: <i>Myoglobin</i> *	1 pM
Flow rate range	1–100 µl/min, through flow cell, steps of 1 µl
Required sample volume	injected volume + 20–80 µl, depending on application
Refractive index range	1.33–1.40
Analysis temperature	4°C to 40°C (max 20°C below ambient)
Number of flow cells	4 (used individually, in series or as 2 pairs)
In-line reference subtraction	yes (flow cell 2-1, 3-1, 4-1, 4-3)
Dimensions (L × W × H)	760 × 350 × 610 mm
Electric voltage	100–120 V; 220–240 V
Power consumption	max 580 VA
Net weight	50 kg/110 lbs

* Detection limits achieved with myoglobin MW 17 000 Da, measured with an antibody sandwich assay

Ordering information

Product	Code number
Biacore 3000 ¹	BR-1100-45
Computer ² , screen, and printer - 110 V	28-9227-26
Computer ² , screen, and printer - 220 V	28-9227-25
Biacore 3000 GxP Package	BR-1005-76
GE Healthcare Validation GxP Services	BR-2001-06

¹ Includes a processing unit, control and evaluation software.

² Includes Windows™ operating system.

For local office contact information, visit
www.gelifesciences.com/contact

www.gelifesciences.com/biacore

GE Healthcare Bio-Sciences AB
 Björkgatan 30
 751 84 Uppsala
 Sweden



GE, imagination at work, and GE monogram are trademarks of General Electric Company.

Biacore is a trademark of GE Healthcare companies.

Windows is a trademark of Microsoft Corp.

© 2011 General Electric Company—All rights reserved.
 First published Sep. 2011

All goods and services are sold subject to the terms and conditions of sale of the company within GE Healthcare which supplies them. A copy of these terms and conditions is available on request. Contact your local GE Healthcare representative for the most current information.

GE Healthcare UK Limited
 Amersham Place
 Little Chalfont
 Buckinghamshire, HP7 9NA
 UK

GE Healthcare Europe, GmbH
 Munzinger Strasse 5
 D-79111 Freiburg
 Germany

GE Healthcare Bio-Sciences Corp.
 800 Centennial Avenue, P.O. Box 1327
 Piscataway, NJ 08855-1327
 USA

GE Healthcare Japan Corporation
 Sanken Bldg., 3-25-1, Hyakunincho
 Shinjuku-ku, Tokyo 169-0073
 Japan