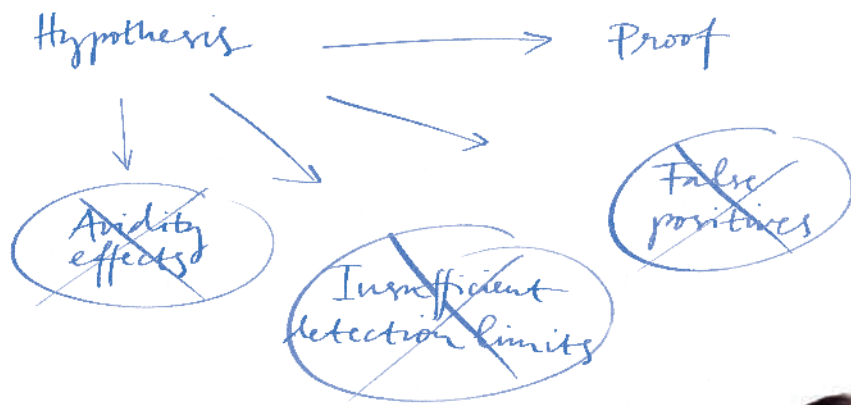


GE Healthcare
Life Sciences

When quality comes first

Cross new frontiers in label-free interaction analysis with Biacore™ T200





Explore biological realities with confidence

Consider the benefits of being completely assured in the results of your interaction analyses. By removing uncertainty, you can confidently make pivotal decisions like selecting the most promising candidates for trials, or defining molecular mechanisms that describe structure/function relationships, thereby allowing you to proceed directly to the next stage of your research.

The performance capabilities of Biacore T200 are designed to help you meet these goals, enabling you to investigate and succeed in the discovery-rich frontiers of biology. And it is precisely that cutting edge performance that opens up a new world of possibilities. Investigations characterized by extreme kinetics, interacting partners with low molecular weights, or physiological concentrations previously beyond the limits of detection, are now all within reach.

The data produced is rich in information content. To help you access and apply the wealth of available insight, Biacore T200 offers comprehensive software tools including tools for immunogenicity studies and GxP compliance.

With the confidence won through the high sensitivity, data quality, and analysis support of Biacore T200, you reduce time-to-results. Results that you can trust to accurately represent biological realities, across a wide range of fields, from exploratory research to strictly regulated clinical trials.



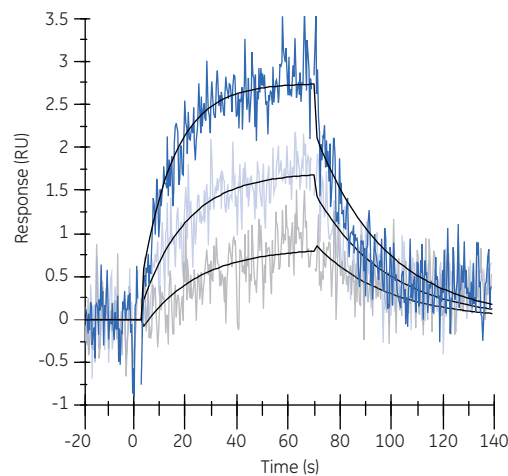
New frontiers of performance

For label-free interaction analysis, Biacore T200 surpasses some important performance records. Molecular size no longer sets a limit. Sensitive or rare proteins can be analyzed. Precise data from the fastest on-rates and slowest off-rates are now obtainable.

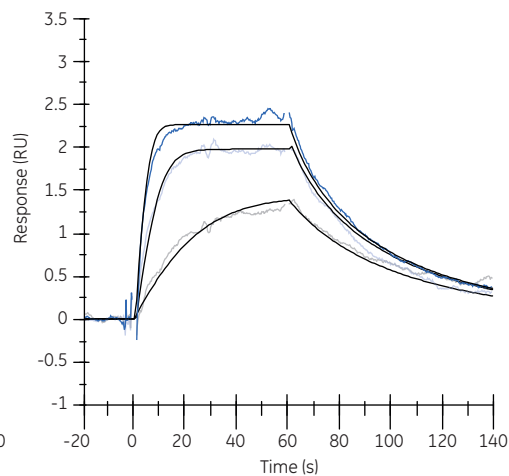
Sensitivity you can trust

Biacore T200 reaches new levels of sensitivity that were previously unattainable. This has a dramatic impact on the quality of data, increasing the precision of measurements, thereby revealing differences in kinetics that you can trust. For example, sensitive membrane proteins such as G protein-coupled receptors (GPCRs) that are extremely fragile outside of their natural environment can be studied.

Biacore T100



Biacore T200



Minute concentrations? No problem.

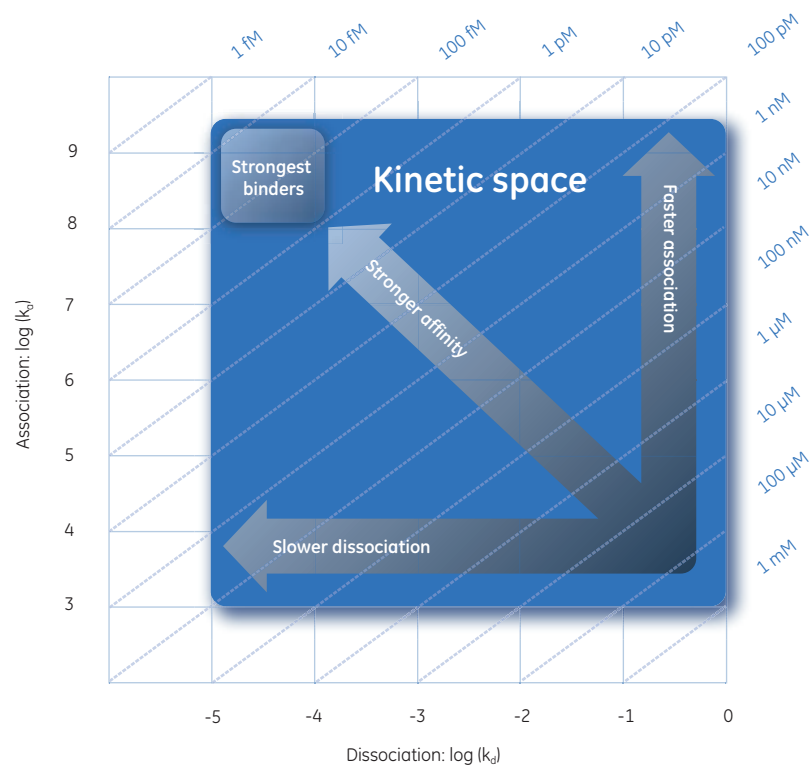
Biacore T200 precisely differentiates concentrations in the picomolar range, measuring interactions in their natural state and avoiding experimental workarounds.

Much more than affinity

Detailed interaction analysis tells the full story. By resolving affinities into kinetic parameters, a much deeper understanding of biological phenomena is obtained. The relationship between molecular interactions and function becomes more apparent.

Cover the full kinetic space

The expanded kinetic space afforded by Biacore T200 gives real benefits. You receive high quality information on the most relevant biomolecular interactions. Even interactions at the extremes of kinetic behavior can be confidently measured. You can precisely determine the true dissociation rates of strongly binding antibodies, important for refining drug efficacy. It is also possible to differentiate between the fastest binders, which can help you to select better candidates for biological processes limited by bioavailability.



Freedom to explore

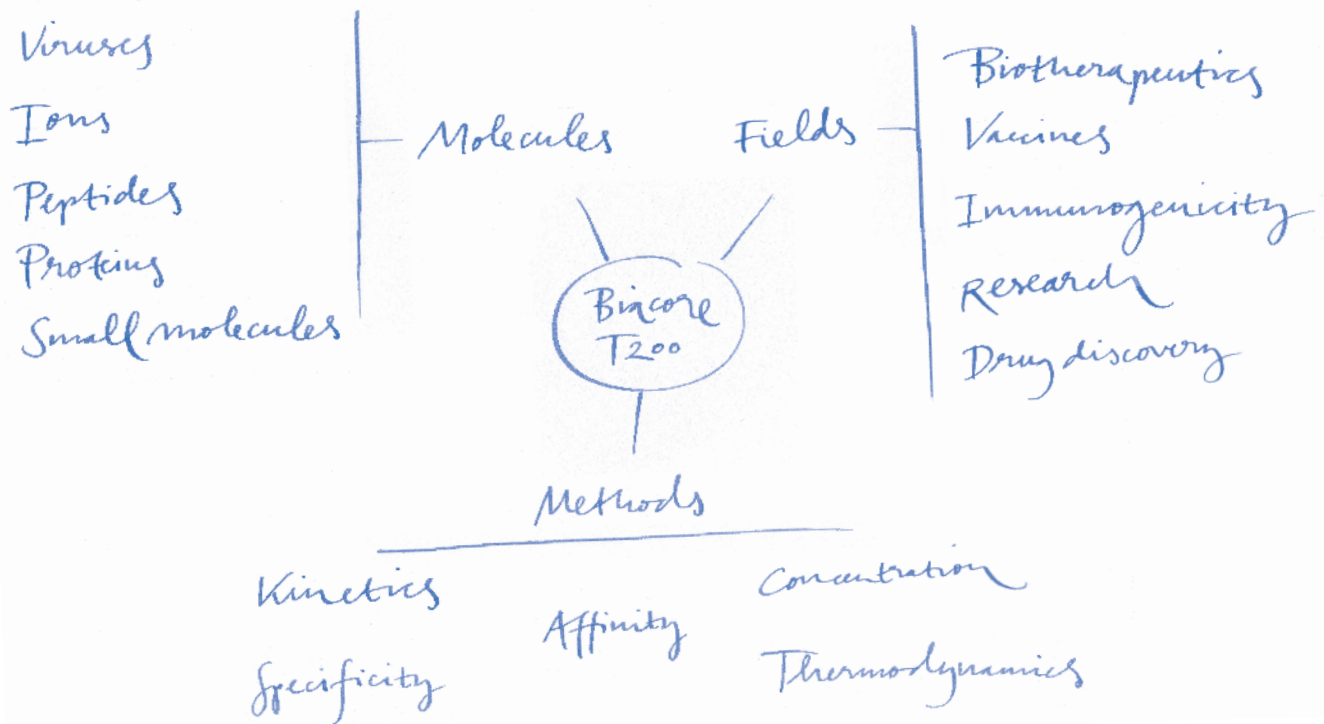
Field versatility

Biacore T200 is designed to provide valuable information on biomolecular interactions in a range of fields, from biological research, biotherapeutic and small molecule drug development, through immunogenicity studies and vaccine development, to quality control.

Method versatility

Beyond kinetic analysis, Biacore T200 offers some powerful investigative perspectives. You can study the specificity of an interaction by comparing interacting pairs, which gives vital information on how molecules bind to an active site. You can also quantitate active concentrations, by measuring the concentration of protein with retained biological function, which gives you a true picture of what is going on.





Molecular versatility

Biacore T200 extends the range of molecules that you can study. Analyses of interactions involving ions, small molecules and fragments, peptides, proteins, nucleic acids, and viruses are all feasible. Freedom from the need to attach labels via specific reactive groups leaves molecules in their native state and opens the possibility to analyze all molecules across the entire biological spectrum. Even when availability is limited or only a fraction of the immobilized protein is active, Biacore T200 delivers precise data on sensitive or rare targets with no risk of compromise or loss of data quality.

Quality information in key applications

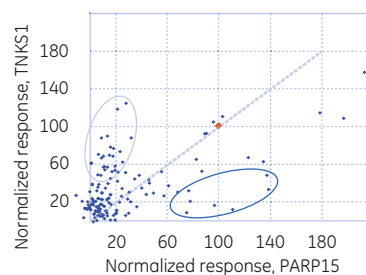
Small molecule and biotherapeutic drug discovery

In the study of small molecule interactions with PARP15 and TNKS1, Biacore T200 provides insight on candidate selectivity between the two proteins with great sensitivity. When interactions with the most interesting compounds are fully characterized, kinetic parameters reveal valuable information about the interacting partners.

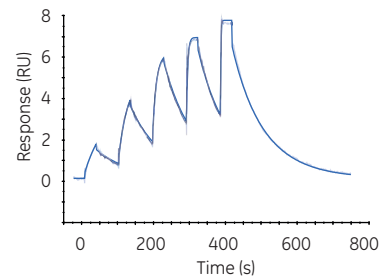
Small molecule–enzyme



Selectivity

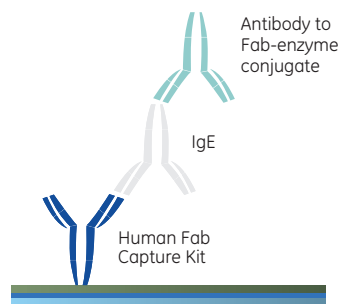


Kinetics

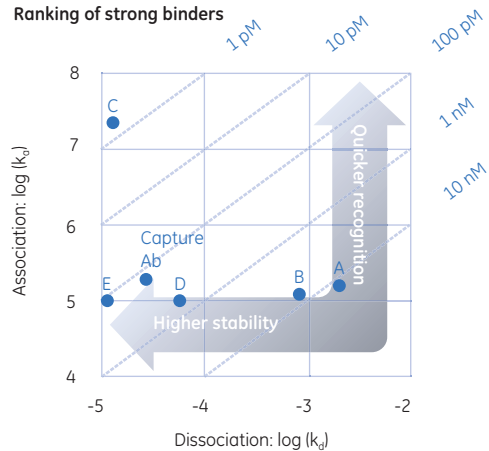


Biotherapeutic development creates new antibodies with high affinities toward their respective targets. When selecting antibodies for a diagnostic allergy assay, Biacore T200 facilitates the ranking of a number of strongly binding antibodies. Experiments can be performed at very low protein densities, thereby providing avidity-free characterization of antibodies in solution..

Antibody–antibody



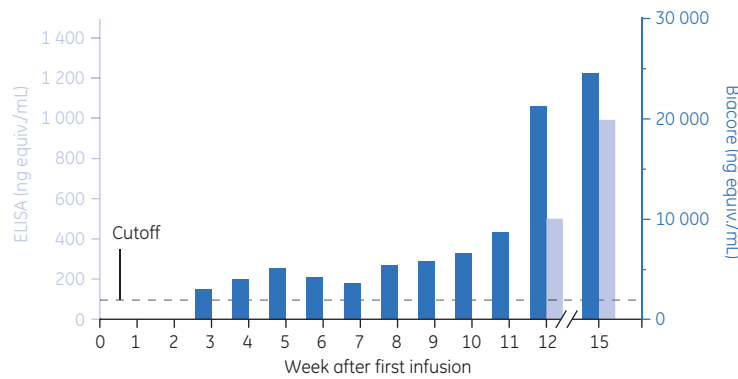
Ranking of strong binders



Immunogenicity testing and quality control

In biotherapeutic drug development, immune responses are a key safety issue. Authorities increasingly require data on all immune responses, not just those of persistent high affinity. Biacore T200 ensures confident detection and comprehensive characterization of both desired and unwanted immune responses in vaccine and biotherapeutic development.

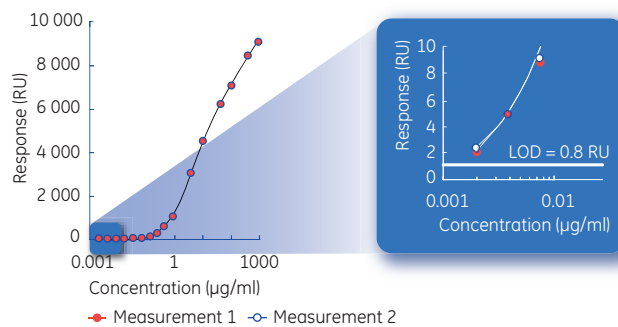
Immunogenicity testing



Screening anti-drug antibodies with Biacore T200 has the advantage of detecting immune responses early, which can be easily missed in end-point assays. Comparison of an ELISA with a Biacore assay for immunogenicity testing shows that immune responses are detected earlier by the Biacore assay.

Pandemic influenza puts pressure on fast and efficient vaccine development and quality control. Biacore T200 characterizes immune response in the development phase, and improves virus quantitation in production. Quantitation can be performed with high sensitivity and precision in significantly less time than the commonly used assay.

Quantitation





Smooth integration, lifecycle support

GE Healthcare provides comprehensive measures for integrating Biacore T200 into GxP-regulated environments. GxP software, onsite qualification, and online support ensure that Biacore T200 is constantly working in a quality assured manner.

Validated software for GxP compliance

The validated software of Biacore T200 allows you to comply with regulatory expectations by supporting GxP procedures and 21 CFR Part 11. When combined with onsite instrument qualification, Biacore T200 is smoothly integrated into a regulated working environment.

Validated for the lifetime of your instrument

Regular instrument re-qualification and change control procedures assure you that the system is functioning correctly throughout its lifetime. By subscribing to complimentary Biacore change control notifications, you can improve process robustness by proactively acquiring instrument updates.

Dedicated support and service

- Local field application specialists
- Web-based support for applications/methodology
- Training courses
- Maintenance and Validation Services

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

Biacore is a trademark of GE Healthcare companies.

All third party trademarks are the property of their respective owners.

© 2010 General Electric Company—All rights reserved.
First published June 2010

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

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



imagination at work