

b-portable – kinetic analysis you can afford

The b-portable offers an efficient and affordable solution to measure biomolecular interactions without labels and in real-time. It is designed to perform kinetic measurements in every benchtop environment. Its reliable workflow includes automated online immobilisation, automated sample handling and in-line referencing. With the b-portable you gain fast access to information on binding affinities as well as association and dissociation rates (k_a and k_d) for almost any type of biomolecular interaction.

High data quality affordable for everybody

The b-portable features the proprietary SCORE technology (single colour reflectometry) which guarantees a reproducible measurement signal and low baseline drift. With its precise optics and microfluidics, binding events are observed in a stable environment in real-time. Therefore, kinetic rate constants can be determined with high accuracy for a wide range of molecules.

The smart and compact design makes the b-portable affordable and keeps maintenance costs minimal.

Consumables

The b-portable utilises low-cost glass type consumables. The chips are optimised for fast and reliable online immobilisation of biomolecules in the b-portable system. Biametrics sensor chips come equipped with various coupling chemistries.

Ideal for

- Quality control
- Process control
- Training courses
- Fast & easy measurements

Fast setup & easy handling

The b-portable is designed to be easily put into almost any measurement environment with very short setup time. User interfaces for samples and reagents are optimised and enable experiments for personnel with minimal training. Sample loading and incubation is automatised to reduce handling errors.

The small footprint and weight of the b-portable also allow easy storage and transport of the device between laboratories.

Applications

Application fields for the b-portable include:

- Protein/protein interactions
- Kinetics
- Calibration-free concentration analysis
- Cell-based assays
- Diagnostic research

The b-portable is also ideal for fast process control in production facilities or student training courses.

Do you have further applications in mind?
Contact us to discuss your needs with our specialists.



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Software

The b-portable software is optimised for touch-screen devices to ensure easy handling and fast setup of the system. It includes a measurement and a data evaluation package.

Measurement, online immobilisation, sample handling and data acquisition are automatised within an user friendly interface. In addition to fast single measurements you can use pre-programmed protocols for performing:

- Online immobilisation
- Kinetics
- Calibration-free concentration analysis
- Affinity in homogeneous phase
- Sandwich assays
- Binding inhibition
- Multiple sequential injections

The open data format also allows the export of data for further evaluation with third party applications.



b-portable software:

Binding can be followed in real-time in the measurement screen of the b-portable software.

A number of pre-programmed protocols are available for standard measurement routines.

Sensitivity & detection limits	1 pg/mm ²
Kinetics	Association rate constants (k_a): between 10 ³ and 10 ⁷ M ⁻¹ s ⁻¹ Dissociation rate constants (k_d): between 10 ⁻⁶ to 0,5 s ⁻¹
Analyte types	Peptides, proteins, DNA, RNA, polysaccharides, lipids, small molecules, cells, viruses and nanoparticles
Sample matrices	Various matrices, e.g. DMSO-containing buffers, cell culture media, urine, plasma, serum, whole blood
Data acquisition	Min. 1 Hz with in-line reference subtraction
Automation	Integrated fluidics for incubation and online immobilisation, unattended measurement cycles with up to 4 samples/reagents (unlimited number of cycles with user input possible)
Portability	Size 20 cm x 20 cm x 20 cm Weight < 3 kg

Contact

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