

BIAffinity®

- System for interaction analysis of different molecules
- Label-free detection principle (reflectometric interference spectroscopy: Rifs)
- Using of the sensor chip technology
- Real-time analysis of binding effects
- Simple sample handling and user-friendly menu driven software

System parameter

Fluidic	Flow through cell, valves with smallest dead volume < 0.7 µl
Flow rate	5 – 200 µl/min
Steps of flow rate	1 µl/min
Number of flow channels	2 (single use of channel 1 or channel 1+2 in series)
Internal reference	Channel 1 – channel 2

Samples

Sample handling	Automatic sample loading and injection via 5 ports
Sample volume	Injection volume + 20 µl
Injection volume	10 µl – 200 µl
Analysis time per sample	2 – 30 min
Optional	96 well standard MTP sampler

Temperature

Analysis temperature	Up to 40°C ± 0.5 K
Operation temperature	15°C – 30°C

Measuring parameter

Measuring point registration	>= 1 s
SNR (RMS)	0.8 IU
Detection limit	> 1000 Da
Sensitivity	1.4 pg/mm ²
Drift	10 IU/h

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Analysis parameter

Measurement information	Detection of concentration, kinetics and affinity data
Association rate range (k_a)	$10^3 - 10^6 \text{ M}^{-1} \text{ s}^{-1}$
Dissociation rate range (k_d)	$10^{-5} - 10^{-1} \text{ s}^{-1}$
Affinity	$10^4 - 10^9 \text{ M}^{-1}$
Concentration	$10^{-3} - 10^{-10} \text{ M}$

Software

Data presentation	Label-free real-time monitoring of interactions with simultaneous display of interference spectrum
Data handling	*.csv (commata separated values)
Control software	BIAM measuring program (provides manual and automatic operation mode)
Analysis software	WinAnalysis (optional) for data evaluation

Other technical data

Computer	Pentium IV processor, Windows 2000 operation system; software instrument
PC connection	USB, connection of PC and detection unit via cable adapter
Weight	Approx. 25 kg
Dimension of device	(W x H x D) 515 x 300 x 370 mm
Dimension of sample holder	(W x H x D) 190 x 165 x 100 mm

Warranty

Device without flow cell	2 years warranty
Flow cell	½ year warranty



Subject to changes in design and scope of delivery as well as further technical development!