



# EUROMicroblot

Efficient blot technology for high throughputs



- Miniaturised immunoblots for infection diagnostics in microplate format
- Analysis of up to 96 samples per plate – perfectly adjustable to any sample throughput
- Parallel processing of screening and confirmatory tests on the same ELISA instrument
- Automated reading and evaluation of the individual EUROMicroblot strips by the Microwell Imager and the proven EUROLinScan software

# EUROMicroblot – efficient blot technology

EUROMicroblots are miniaturised multiparameter line blots in a 96-well microplate format. The microplate wells contain test strips that are printed with purified, pathogen-specific antigens and with controls at defined positions. The break-off wells can be separated individually so that the number of analyses can be flexibly adapted to the actual need. By providing the immunoblot in a microplate format, screening and confirmatory tests can be processed in parallel on the same automated ELISA system and free capacities on the instrument can be used optimally. The subsequent evaluation is carried out fully automatically by the Microwell Imager and the EUROLinScan software.

## Layout of the EUROMicroblot wells:

**Example: anti-Borrelia (IgG)**

- 1 Conjugate control
- 2 Serum/plasma control
- 3 p83
- 4 p41
- 5 p39
- 6 DbpA
- 7 OspC
- 8 VlsE Bg
- 9 VlsE Bb
- 10 VlsE Ba

**Example: anti-Borrelia (IgM)**

- 1 Conjugate control
- 2 Serum/plasma control
- 3 p39
- 4 p41
- 5 VlsE Bb
- 6 OspC-adv Ba
- 7 OspC-adv Bb
- 8 OspC-adv Bg
- 9 OspC-adv Bsp

### Reduction of manual steps for even more safety in the entire process

The ready-to-use reagents are optimally suited for automated processing and can be loaded directly into the instrument without time-consuming decanting. Thanks to automatic barcode recognition of samples, plates and reagents, traceability is ensured throughout the entire process and all data can be reliably merged.



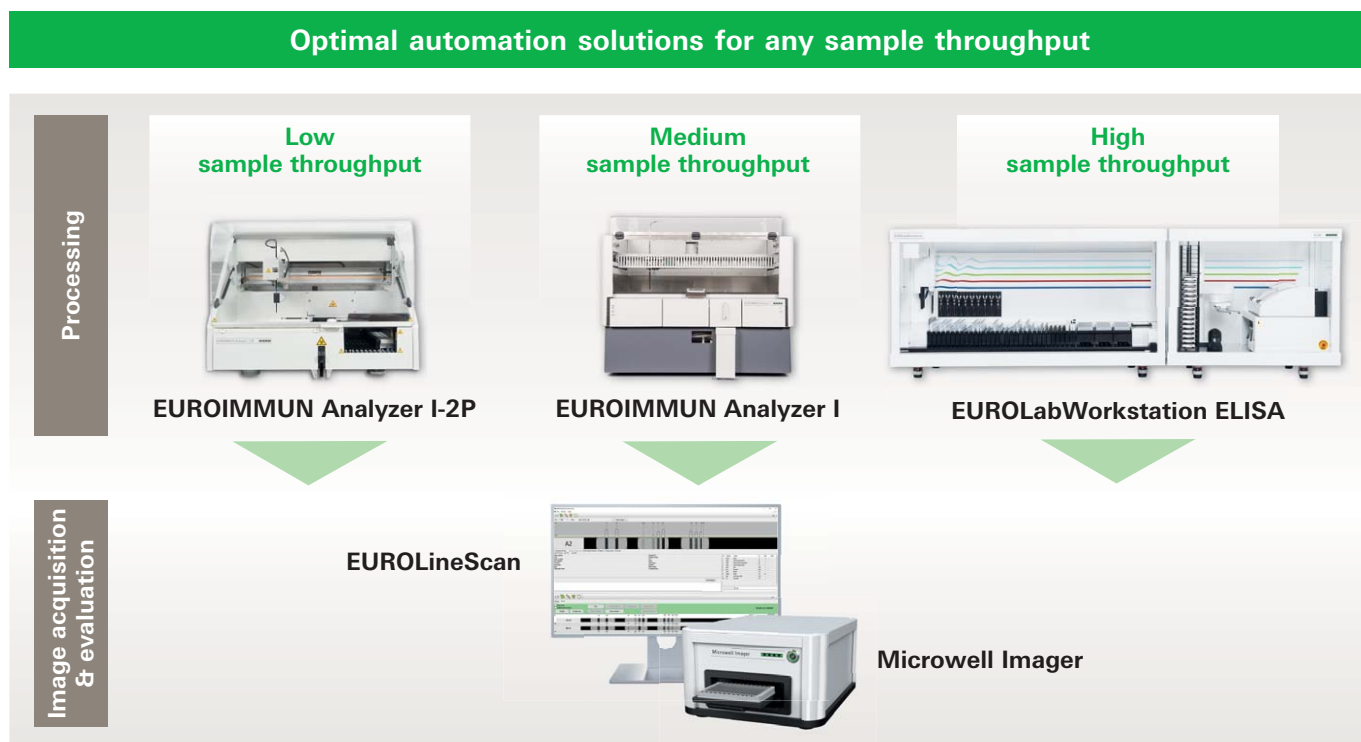
### New technology with proven quality

62 and 58 certified quality assessment samples from two different reference laboratories were investigated using the EUROMicroblot Anti-Borrelia (IgG) and EUROMicroblot Anti-Borrelia (IgM), respectively. Compared to the specified target values of the QA institutes, positive agreement was 100% (IgG, IgM) and negative agreement was 97.0% (IgG) and 100% (IgM).

Test system		Anti-Borrelia burgdorferi sensu lato characterisation by RfB/CSCQ	
		positive	negative
EUROMicroblot Anti-Borrelia (IgG); n = 62	positive	28	1
	negative	0	33
EUROMicroblot Anti-Borrelia (IgM); n = 58	positive	6	0
	negative	0	52

RfB: Reference Institute for Bioanalytics; CSCQ: Swiss Centre for Quality Control

For fully automated processing of EUROMicroblots, ELISA platforms with different sample capacities and throughputs are available. EUROMicroblots have been validated on the EUROLabWorkstation ELISA as well as the EUROIMMUN Analyzer I and I-2P and can be processed on these instruments in one run together with ELISA tests.



### Example workflows for *Borrelia* diagnostics with the EUROIMMUN Analyzer I

Test	Number of patient samples	Instrument runtime hh : mm	Number of tests per hour
50 ELISAs Anti-Borrelia (IgG/IgM), 10 ELISAs Anti-EBV-CA (IgG/IgM), 10 ELISAs Anti-Treponema pall. (IgG/IgM), 16 EUROMicroblots Anti-Borrelia (IgG/IgM)	<b>86</b>	<b>4:45</b>	<b>18</b>
Only EUROMicroblots Anti-Borrelia (IgG/IgM)	<b>94</b>	<b>3:31</b>	<b>27</b>

### Example workflows for *Borrelia* diagnostics with the EUROLabWorkstation ELISA

Test	Number of patient samples	Instrument runtime hh : mm	Number of tests per hour
250 ELISAs Anti-Borrelia (IgG/IgM), 50 ELISAs Anti-EBV-CA (IgG/IgM), 80 ELISAs Anti-Treponema pall. (IgG/IgM), 80 EUROMicroblots Anti-Borrelia (IgG/IgM)	<b>460</b>	<b>4:51</b>	<b>95</b>
Only EUROMicroblots Anti-Borrelia (IgG/IgM)	<b>94</b>	<b>2:13</b>	<b>42</b>

### Image acquisition with the Microwell Imager

The Microwell Imager is a compact benchtop device for efficient acquisition of images of incubated EUROMicroblots. The proven EUROLineScan software enables user-friendly operation of the Microwell Imager and convenient evaluation of the recorded blot bands. The intelligent image pre-processing enables optimal integration into the automated processing of EUROMicroblots. Due to the integrated barcode scanner, reliable assignment of samples is ensured.





## Evaluation with the EUROLineScan software

**Detailed view**

**Overview**

**Text modules**  
Suitable pre-formulated phrases to choose from – for convenient final reporting!

No.	Abbrev.	Name	Int.	Char
1	OspC	OspC	6	o
2	VBg	VisE Borrelia garinii	91	+
3	VBb	VisE Borrelia burgdorferi	87	+
4	VBa	VisE Borrelia afzelii	111	+
5	p83	p83	138	+
6	p41	Flagellin	108	+
7	p39	BmpA	35	+
8	DbpA	DbpA	20	(+)

**Automated evaluation**  
The software independently detects and identifies the bands and measures their intensity.

**Result proposal**  
Clear presentation of test results. The automated evaluation can be supplemented manually if required.

**Operation of the Microwell Imager**

**Automated evaluation**

**Archiving**



## Advantages of EUROMicroblots at a glance

- Minimisation of hands-on time due to pre-equipped microplate wells
- Safety during test performance due to integrated controls in each well
- Individual presentation of all immunologically relevant antigens of infectious agents – ideal for confirmatory diagnostics
- Flexibility through individual break-off wells and their combination in a 96-well format
- High efficiency thanks to fully automated processing on ELISA instruments, including full traceability through automatic barcode registration when using the EUROLabWorkstation ELISA, EUROIMMUN Analyzer I or I-2P
- Automated evaluation, clear result presentation and secure archiving in the intuitive and user-friendly EUROLineScan software



## Order information

Category	Product name	Function	Order number
Test system	EUROMicroblot Anti-Borrelia (IgG, IgM)	Immunoblot for the detection of specific antibodies against <i>Borrelia</i>	KN 2131-9601 G, M
Standard scope of delivery	EUROLineScan	Software for operation of the Microwell Imager and for data analysis	YG 0006-0101
	Microwell Imager	Instrument for image acquisition	YG 0191-0101
	EUROLabOffice 4.0	Laboratory management software	YG 0250-0101-7
ELISA processor (optional)	EUROIMMUN Analyzer I-2P	Fully automated processing of ELISA-based test systems	YG 0015-0101
	EUROIMMUN Analyzer I		YG 0014-0101
	EUROLabWorkstation ELISA		YG 0851-0101