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MBA

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Microblot-Array

Multiplex diagnostics in microtiter plate format

ENG

Definition of efficient multiplex diagnostics

Microblot-Array is an immunoblot array in microtiter plate format designed for efficient multiplex diagnostics. The technology eliminates the bottleneck of traditional BLOT processing and capacity and opens up the way to high throughput testing and automation.

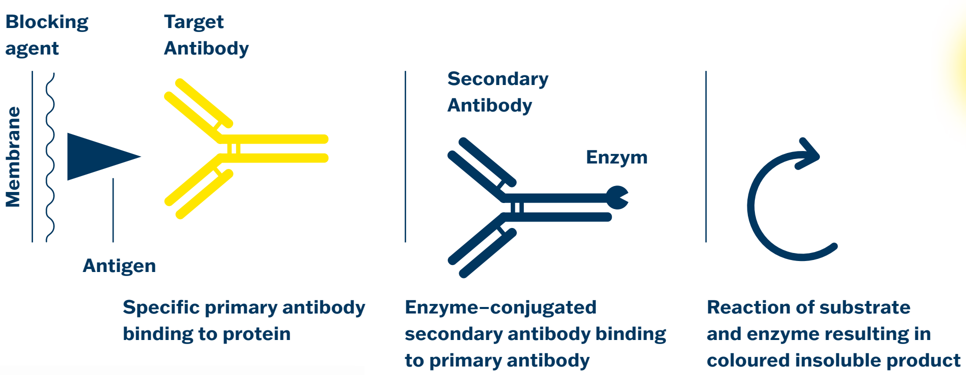
The comprehensive evaluation of Microblot Array testing is ensured by using the Microblot-Array Software in combination with the Microblot-Array Reader, enabling complex image analysis including results evaluation and connectivity to LIS.

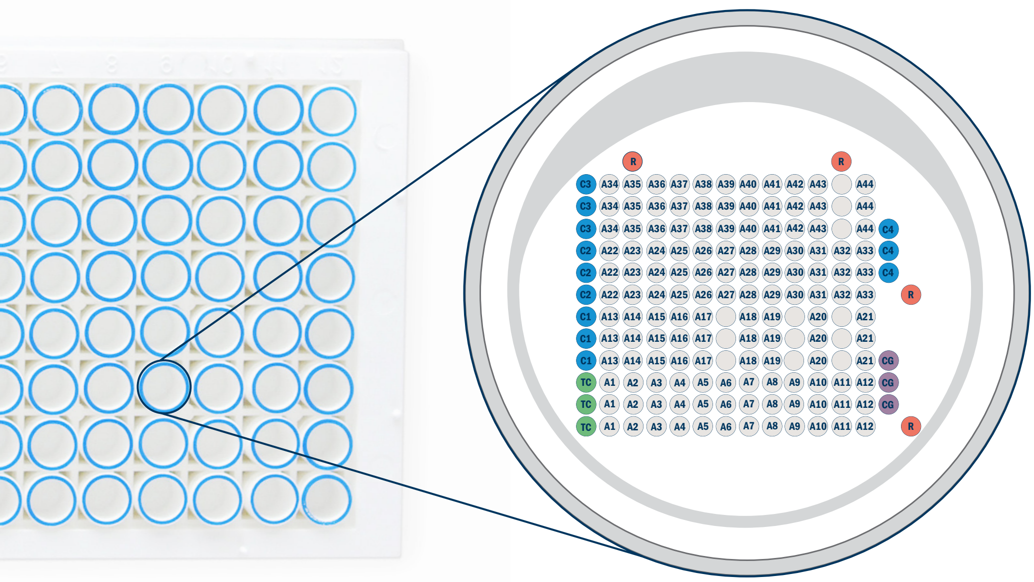
Main clinical areas covered

– Infectious serology
– Autoimmunity

Microblot-Array principle

Specific recombinant proteins/antigens spotted onto a nitrocellulose membrane





R – Reference
TC – Test control
CA – Conjugate control IgA
CG – Conjugate control IgG
CM – Conjugate control IgM
C1 – Calibration 1
C2 – Calibration 2
C3 – Calibration 3
C4 – Calibration 4

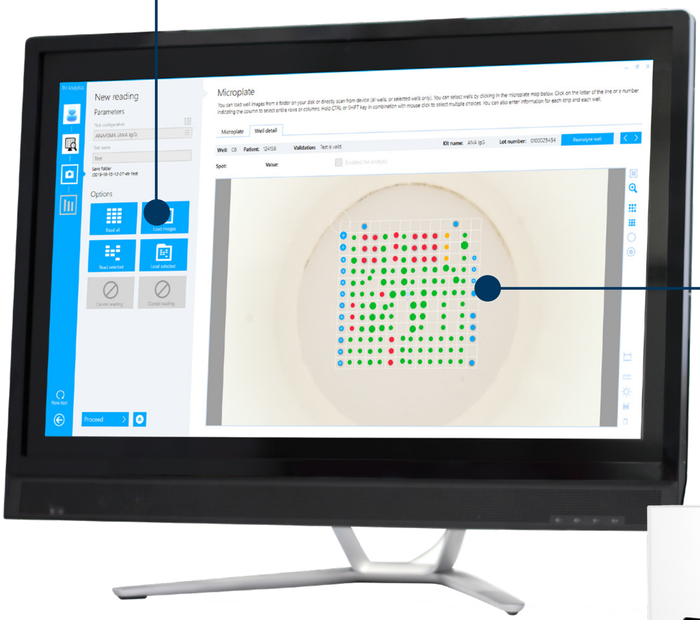
Complex solution

Microblot-Array Software

- Automated test identification
- Intuitive and user-friendly guiding throughout the results evaluation
- Complex image analysis
- Optional manual control of spot localization
- Detailed results comparison within single wells and spots
- Evaluation of the validity test through control spots
- Export of results in various formats
- LIS connectivity

Calibration data

- Innovative processing and evaluation with LOT identification
- Calibration data ensure significant benefits:
  - Interchangeability of conjugate and substrate between the same Ig classes
  - Unification of evaluation criteria for all MBA kits
  - The more effective automatic processing



Microblot-Array

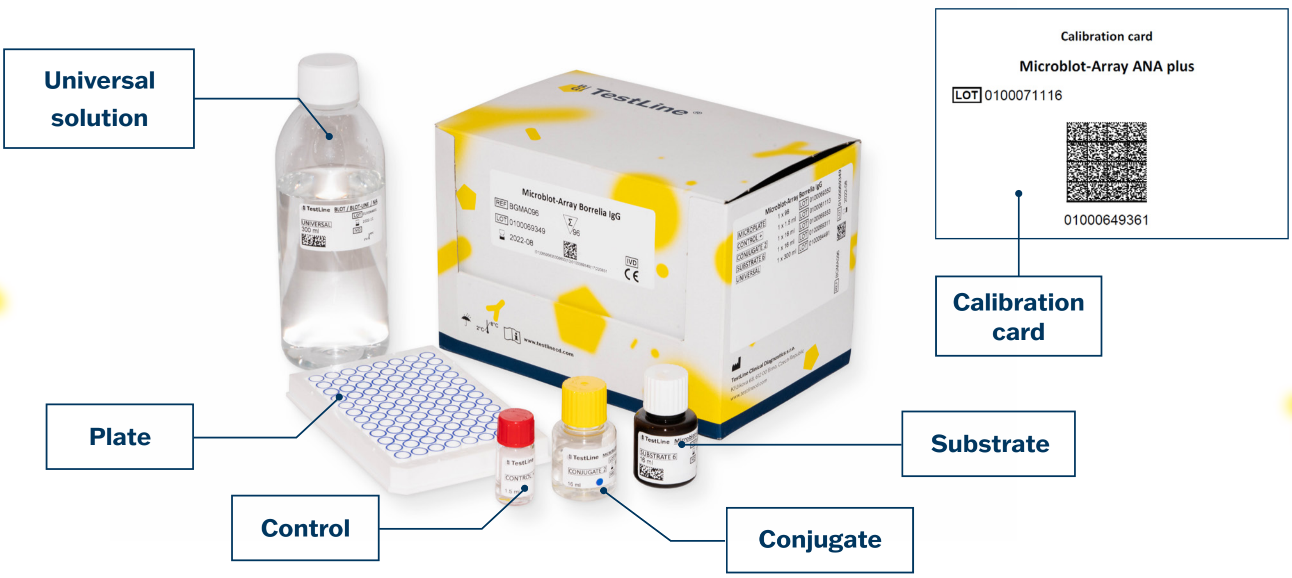
- Antigens spotted in triplicate – minimizing statistical variation
- Controls in each well
- 4 calibration spots to create a calibration curve
- Evaluation based on combination of positive antigen spots: qualitative, quantitative (U/ml) or semiquantitative (IP)

Microblot-Array Reader

- Fast high-quality scanning and evaluation: 5 min. per full plate
- Scanning of selected wells
- Automated spot localization and image analysis
- Optimized for a 96-well microtiter plates format

Protocol Summary

Step No.	Test steps
1.	Pipette Universal Solution – 150 µl
2.	Wells soaking at room temperature for 10 min.
3.	Aspirate off
4.	Dilute samples serum/plasma 1:51 (10 µl + 500 µl) cerebrospinal fluid 1:3 (50 µl + 100 µl) synovial fluid 1:17.5 (10 µl + 165 µl)
5.	Pipette control and diluted samples – 100 µl
6.	Incubate at room temperature for 30 min.
7.	Quick wash using the Universal Solution
8.	Aspirate and wash 3 × 5 min. with 150 µl of Universal Solution
9.	Pipette Conjugate – 100 µl
10.	Incubate at room temperature for 30 min.
11.	Quick wash using the Universal Solution
12.	Aspirate and wash 3 × 5 min. with 150 µl of Universal Solution
13.	Pipette Substrate Solution (BCIP/NBT) – 100 µl
14.	Incubate at room temperature for 15 min.
15.	Quick wash using the distilled water
16.	Aspirate and wash 2 × 5 min. with 200 µl of distilled water
17.	Dry and evaluate strips



Spot No.	Antigen	Description	Probable association with disease (Evaluation of association with disease by SW)			
			ANA	Myositis	Scleroderma	SLE and other connective tissue diseases
A1	Jo-1	Hystidyl tRNA synthetase	●	●		
A2	PL-7	Threonyl tRNA synthetase	●	●		
A3	PL-12	Alanyl tRNA synthetase	●	●		
A4	EJ	Glycyl tRNA Synthetase	●	●		
A5	OJ	Isoleucyl tRNA synthetase	●	●		
A6	KS	Asparaginyl tRNA synthetase	●	●		
A7	YARS	Tyrosyl tRNA synthetase (Ha)	●	●		
A8	ZoA	Phenylalanyl tRNA synthetase	●	●		
A9	ZoB	Phenylalanyl tRNA synthetase	●	●		
A10	HMGCR*	3-hydroxy-3methylglutaryl-coenzyme A reductase	●	●		
A11	SAE-1	Small ubiquitin-like modifier activating enzyme	●	●		
A12	SAE-2	Small ubiquitin-like modifier activating enzyme	●	●		
A13	SRP54	Signal recognition particle	●	●		
A14	Mi-2	Helicase protein-nuclear transcription	●	●		
A15	TIF1γ	Transcription Intermediary Factor 1	●	●		
A16	MDA5	Melanoma differentiation associated protein 5 (CADM-140)	●	●		
A17	NXP2	Nuclear matrix protein 2 (p140, MJ)	●	●		
A18	PMScl 100	Human exosome complex	●	🔴	●	
A19	PMScl 75	Human exosome complex	●	🔴	●	
A20	Scl70	DNA-topoisomerase I	●		●	
A21	CENP A	Centromere A	●		●	
A22	CENP B	Centromere B	●		●	
A23	POLR3A	RNA polymerase III	●		●	
A24	NOR90	Nucleolar transcription factor 1 (Ubtf1)	●		●	●
A25	Th/To	Ribonuclease P protein subunit 25 (Rpp25)	●		●	
A26	PDGFR-β	Platelet-derived growth factor receptor beta	●		●	
A27	Fibrillarin	U3 RNP – fibrillarin	●		●	
A28	Ro52	TRIM21	●	🔴	🔴	●
A29	Ro60	Sjögren's-syndrome-related antigen A (SS-A)	●			●
A30	La	Sjögren's-syndrome-related antigen B (SS-B)	●			●
A31	RNP A	U1 small nuclear ribonucleoprotein A	●		●	●
A32	RNP 68/70	U1 small nuclear ribonucleoprotein 68/70 kDa	●		●	●
A33	RNP C	U1 small nuclear ribonucleoprotein C	●		●	●
A34	SmB	Smith antigen B	●			●
A35	SmD	Smith antigen D	●			●
A36	PCNA	Proliferating cell nuclear antigen	●			●
A37	P0	Ribosomal protein P0	●			●
A38	Ku	Ku (p70/p80)	●	🔴	🔴	●
A39	Nucleolin	Nucleolin	●			●
A40	Histons	Histone	●			●
A41	Nucleosome	Nucleosome	●			●
A42	dsDNA	Double-stranded DNA	●			●
A43	M2	Mitochondrial M2 (AMA-M2)	🔴		🔴	
A44	DFS70	Dense fine speckled 70 antigen	🔴			

*Check availability in your country.
🔴 – supplementary antigens, SLE – Systemic lupus erythematosus

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CERTIFIED
ISO 9001 · ISO 13485

Company is certified to the quality management system standards ISO 9001 and ISO 13485 for in vitro diagnostics.

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