

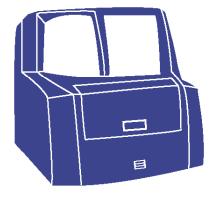




# Technology

3D immunoassay reaction on the surface of a

#### microparticle



- HiTech antigen test
- Automated and easy to use
- Laboratory quality at the point-of-care

## **TPX technology**

mariPOC® utilizes the TPX (Two-Photon Excitation) assay technique for highly sensitive and extremely specific antigen detection. It is a proprietary technology of the Finnish Company ArcDia International Ltd., the developer and manufacturer of mariPOC®.

## High sensitivity and specificity

mariPOC® provides the best antigen detection sensitivity at the point-of-care. The superior specificity is the unique feature of the mariPOC® technique. It results from the use of the sandwich immunoassay principle.

#### mariPOC® is unique

Specificity is further improved by the use of 3 µm polystyrene microparticles as the solid reaction phase. Laser-excited fluorescence of individual microparticles is measured one at the time. Also the fluorescence signal of the surrounding matrix is recorded. Finally a sophisticated data reduction algorithm returns the quantitative test result.

The TPX technology brings antigen testing to the 3D level. The unique technology is easy to use, efficient and accurate. mariPOC® detection is automated and separation-free. The process can be applied to various sample materials.

Hänninen P. et al. (2000) A New Microvolume Technique for Bioaffinity Assays Using Two-Photon Excitation. Nat Biotechnol. 18(5):548–550.







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ArcDia International Ltd.





#### Each pathogen specific assay is carried out in an

#### individual well

of the test plate

- Reagents are dried to the well bottoms
- Rapid identification in 15-20 minutes
- Closed-well detection



Two-photon excitation with a aser

Fluorescent detection through the bottom of the **test plate** 

## **Performance**

Test	mariPOC® compared to	Sensitivity	Specificity	N
	PCR			
	Influenza A virus	92.3%	99.8%	899
Respi	Influenza B virus	88%	100%	192
	RSV	89%	100%	158
	Bacterial culture			
Pharyn	Group A streptococci	Pharyn 150% Quick StrepA 100%	100%	219
	Immunochromatography			
CDI	C. difficile GDH	100%	98.8%	188
CDI	C. difficile toxins A/B	> 100%	100%	188

**Combine rapidity** and lab level performance with mariPOC®!

Thomas E. et al. 29th ECCMID 2019, Amsterdam, Netherlands. Abstract and poster #P0114. Sanbonmatsu-Gámez S. et al. (2015) Diagn Microbiol Infect Dis. 83:252-256. Ivaska L. et al. (2013) J Clin Virol. 57:136-140. Vakkila J. et al. (2015) J Clin Microbiol. 53:2079-2083.







