

# Human MxA POCT

**Differentiation between viral and bacterial  
infections for effective antibiotic treatment**

## Human MxA

Manufactured by Bioinova



Product Name	Bi-VirTest®
Cat. No.	BI005-10
Assay Formate	Lateral Flow Test
Quantitative Mesuring Range	5–200 ng/ml
Sample Type	Capillary Blood
Size	10 tests / package
Regulatory Status	CE IVD
Assay Time	~15 minutes
Cut-off	45 ng/ml
Clinical Sensitivity and Specificity	≥ 92% and 95%
Application	Diferentiation between viral and bacterial infections Viral infections: acute phase disease monitoring



## LFT Reader

Product Name	Bi-Reader®
Regulatory Status	CE IVD
User	Professional Use; Lab and POCT
Test format	Test cassette or test strip
Lighting	Wavelength 525 nm
Configuration	RFID technology
Dimensions L x W x H	41 x 41 x 40 mm
Weight	approx. 40 g
Power supply	3 batteries CR2032 (3V/230 mAh) or Cube Reader specific power cord (optional article) also usable for data transfer to PC/laptop

# Diagnostic relevance of MxA

MxA protein expression is specifically induced by IFN type I and type III in a dose depended manner. MxA protein levels increase rapidly and significantly following viral infection. The concentration of MxA in peripheral blood of healthy people is very low. It is induced < 2 hours after infection and peaks after 16 hours.

While the mechanism by which DNA viruses induce IFNs is different from RNA viruses, the upregulation of MxA protein expression is elevated in response to a wide variety of viral infections,

such as adenovirus, hepatitis C virus (HCV), human papillomavirus (HPV), herpes simplex virus (HSV), influenza, metapneumovirus, parainfluenza, rhinovirus, respiratory syncytial virus (RSV), rotavirus, SARSCoV-2, vesicular stomatitis virus etc.

This makes MxA a useful marker of viral activity and replication in cells, as well as a sensitive and specific biomarker for the early detection of viral infections. In addition, IFN I-induced MxA protein levels have been used to monitor the effectiveness of IFN therapy.

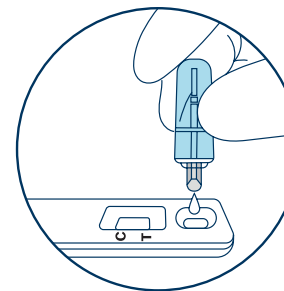
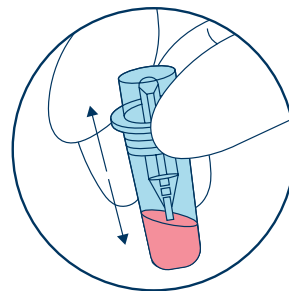
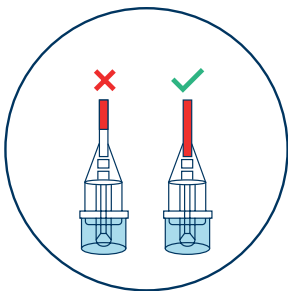
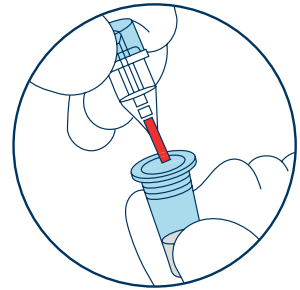
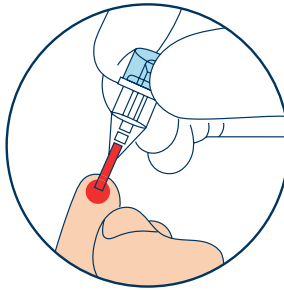
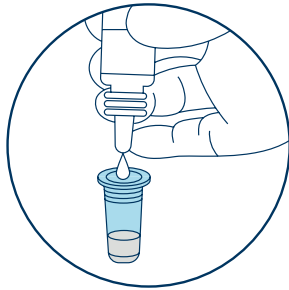
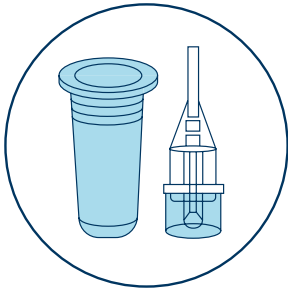
## Point-of-Care Testing (POCT)

### Clinical applications

- differentiation between viral and bacterial infections
- viral infections: acute phase disease monitoring

Gold nanoparticle conjugate-based Lateral Flow Test for determination of MxA uses a pair of specific monoclonal antibodies to bind MxA protein from the sample. The assay provides quantitative results if Bi-Reader<sup>®</sup> is used to read out the signal.

## Easy to perform



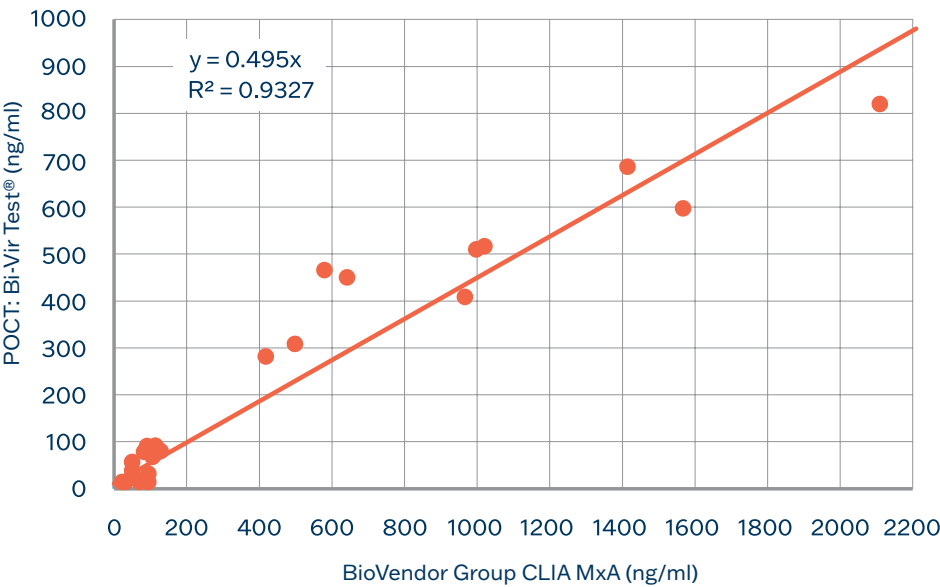
## Easy to interpret

MxA level (ng/ml)	Acute viral infection
0-45	NO
>45	YES

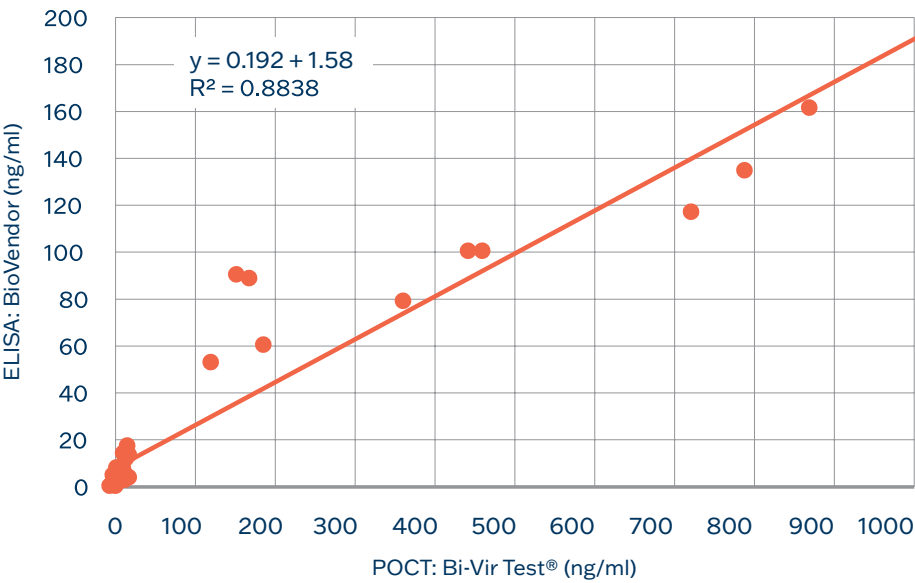
# Assay comparisons

## Correlation between CLIA (BioVendor Group CLIA MxA \*) and POCT (Bi-Vir Test®)

\* Fully automated CLIA solution from BioVendor Group: random-access KleeYa® analyzer from Diatron with diagnostic kits from BioVendor Group.



## Correlation between ELISA (BioVendor R&D) and POCT (Bi-Vir Test®)



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