





The purchase of this product includes a limited, non-transferable license under specific claims of one or more US patents listed on the BioFire Diagnostics website (http://www.biofiredx.com/legal-notices/) owned by BioFire and/or the Research Foundation of The University of Utah. The blue logo, BioFire and FilmArray logos, and BIOMÉRIEUX, BIOFIRE, and FILMARRAY are used, pending, and/or registered trademarks belonging to bioMérieux or BioFire or one of their subsidiaries or companies. Document and/or picture not legally binding. Modifications can be made without prior notice. No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without the express written permission of bioMérieux/BioFire Diagnostics.

bioMérieux S.A. 69280 Marcy l'Etoile France

Tel.: +33 (0) 4 78 87 20 00 Fax: +33 (0) 4 78 87 20 90

www.biomerieux.com

Manufactured by: BioFire Diagnostics, LLC 515 Colorow Drive, Salt Lake City, UT 84108, USA

BioFire is wholly owned by bioMérieux.

www.biofiredx.com









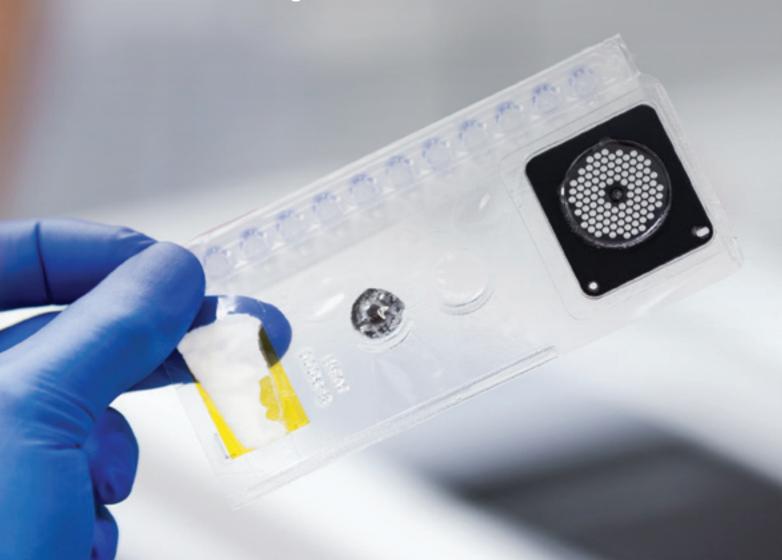


Syndromic Testing: The Right Test, The First Time.

bioMérieux's line of BioFire products is evolving infectious disease diagnostics.



The BioFire syndromic approach empowers clinicians to choose the right test, the first time.



## Don't Guess. Know.

Many infectious diseases present with similar signs and symptoms. Traditional targeted diagnostics limit testing to only the pathogens most commonly associated with a clinical syndrome. Because this testing method is so narrowly defined, it can leave many infections undiagnosed and may lead to additional downstream testing, patient dissatisfaction, and compromised patient care.

BioFire's syndromic approach to infectious disease diagnostics helps quickly identify pathogens, greatly reduces the guesswork in diagnostics, may increase patient satisfaction, can help improve patient care, and helps make the world a healthier place.

Choose the right test, the first time. Choose syndromic testing from BioFire.

# **Traditional Testing**



## **Syndromic Testing**



<sup>1</sup>Brendish NJ, et al. Lancet Respir Med. 2017 May;5(5):401-411.



# The Fastest Way to Better Results.



## **Faster Results**

With about an hour turnaround time, BioFire's syndromic testing helps clinicians make vital decisions regarding admission, isolation, cohorting, antiviral or antibiotic therapy, and additional diagnostic testing.



## **Better Results**

By harnessing the power of syndromic testing, labs can increase the probability of identifying a pathogen in patients with symptoms of an infectious disease. Each BioFire® FilmArray® Panel increases the capability of detecting co-infections and may result in shorter length of stay and improved downstream savings.

"FilmArray from BioFire has massively influenced the way we now manage our patients and infection control situations. For example, rapid diagnosis of whooping cough [B. pertussis on BioFire® Respiratory 2.1 plus Panel] has enabled us to initiate effective treatment and infection control measures within hours of patient's arrival to the hospital. Previously, a result from reference lab would typically take three to four days."

Dr. Mitul Patel

Consultant Microbiologist Birmingham Children's Hospital, UK



# Syndromic Testing Streamlines Laboratory Processes.

BioFire products can be used by any technician, on any shift, at any time. This helps hospitals provide the same standard of care 24/7 and removes the need to delay or send out samples for additional testing.



#### **Fast**

With a run time of about an hour, syndromic testing enables laboratories to provide answers to physicians in a clinically actionable time frame.



## Easy

BioFire's syndromic approach is easy, and test preparation requires only two minutes of hands-on time. Results are given in a positive or negative report for each pathogen from a broad test menu.

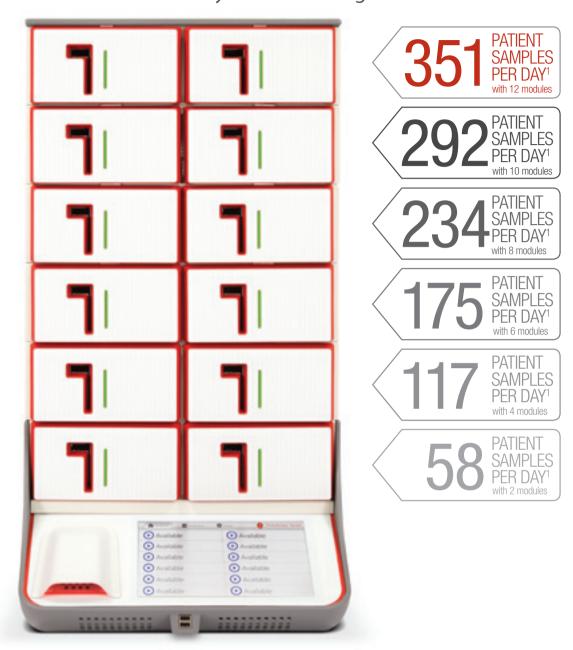


## Comprehensive

Syndromic testing eliminates serial testing that can be frustrating and timeconsuming for laboratories. It consolidates quality control and proficiency testing as well as minimizes the time required to keep and maintain multiple instruments.

# The BioFire® FilmArray® Torch:

The most advanced syndromic testing.



Scalable configuration for customized throughput from 1 to 12 modules.

<sup>&</sup>lt;sup>1</sup>Calculations based on running the BioFire® Respiratory 2.1 Panel over a 24-hour day.



## Intuitive

Provides faster input and navigation through an optimized user experience with a touchscreen interface, integrated barcode scanner, and intuitive instrument control.



#### Access

Improved testing and laboratory productivity with random and continuous access sample loading.



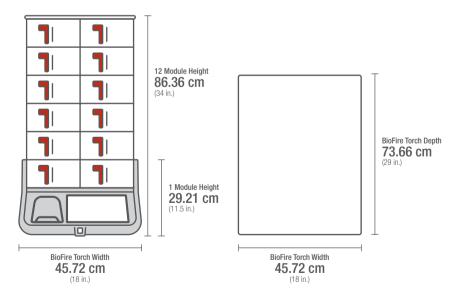
## Connectivity

Makes data management automated and efficient through the BioFire® FilmArray® Link Technology that can seamlessly integrate into Laboratory Information System (LIS).



## Radically Reduced Footprint

The BioFire® Torch offers the most scalable system with the same footprint.2



<sup>2</sup>In comparison to existing BioFire® FilmArray® Systems.



# Fast Answers With BioFire Syndromic Panels.

## Comprehensive Panels Offer Better Diagnostics

Comprehensive panels take out the guesswork. Each BioFire® Panel targets an infectious disease syndrome by combining a broad grouping of probable pathogenic causes into a single test.

The CE-marked BioFire Panels test for viruses, bacteria, parasites, yeast, and antimicrobial resistance genes.



Respiratory 2.1 plus Panel



Pneumonia plus Panel



**Gastrointestinal Panel** 



Meningitis/Encephalitis Panel



**Blood Culture Identification 2 Panel** 

Product availability varies by country. Consult your bioMérieux representative.

**Pending US FDA Review** 



Joint Infection Panel\*

\*Investigational use only. Not for use in diagnostic procedures. Currently under FDA Review, panel menu subject to change. Not available for sale.

Pe

Prod



Sample Type: 0.3 mL of nasopharyngeal swab in transport media or saline CE-marked

## 23 Targets in One Test

The BioFire® Respiratory 2.1 plus (RP2.1plus) Panel identifies the most common viral and bacterial pathogens—including SARS-CoV-2—that cause respiratory tract infections, which can present with nearly indistinguishable symptoms. An unprecedented run time of about 45 minutes enables higher efficiency and throughput on the BioFire® FilmArray® 2.0 and the BioFire® Torch Systems, and offers faster results to clinicians, potentially enabling better-informed diagnosis and treatment of patients. Higher overall sensitivity across a broader spectrum of pathogens means the BioFire RP2.1plus Panel offers the world the fastest way to better results in the detection of respiratory pathogens.

## **Panel Menu**

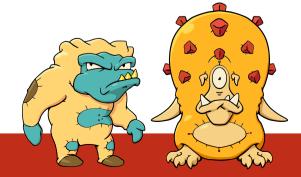
#### **VIRUSES**

Adenovirus
Coronavirus 229E
Coronavirus HKU1
Coronavirus NL63
Coronavirus 0C43
Middle East Respiratory
Syndrome Coronavirus (MERS-CoV)
Severe Acute Respiratory Syndrome
Coronavirus 2 (SARS-CoV-2)
Human Metapneumovirus
Human Rhinovirus/Enterovirus

Influenza A
Influenza A/H1
Influenza A/H1-2009
Influenza A/H3
Influenza B
Parainfluenza Virus 1
Parainfluenza Virus 2
Parainfluenza Virus 3
Parainfluenza Virus 4
Respiratory Syncytial Virus

#### **BACTERIA**

Bordetella parapertussis Bordetella pertussis Chlamydia pneumoniae Mycoplasma pneumoniae



C €zrar



Sample Type: Sputum (including ETA) and BAL (including mini-BAL) CE-marked and US FDA-cleared

## 34 Targets in One Test

The BioFire Pneumonia **plus** Panel tests for 27 of the the most common bacterial and viral pathogens associated with various types of community/hospital-acquired pneumonia, along with 7 antimicrobial resistance genes. Quickly identifying the probable causative agent can help a healthcare provider determine how best to treat a lower respiratory tract infection.

## **Panel Menu**

#### **BACTERIA**

Semi-Quantitative Bacteria
Acinetobacter calcoaceticusbaumannii complex
Enterobactercloacaecomplex
Escherichia coli
Haemophilus influenzae
Klebsiella aerogenes
Klebsiella oxytoca
Klebsiella pneumoniae group
Moraxella catarrhalis
Proteus spp.
Pseudomonas aeruginosa
Serratia marcescens
Staphylococcus aureus

Streptococcus agalactiae

Streptococcus pyogenes

Streptococcus pneumoniae

#### ATYPICAL BACTERIA

Qualitative Bacteria Chlamydia pneumoniae Legionella pneumophila Mycoplasma pneumoniae

#### **VIRUSES**

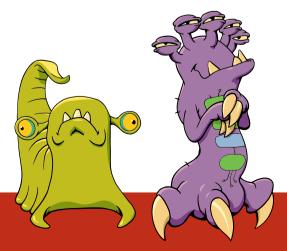
Adenovirus
Coronavirus
Human Metapneumovirus
Human Rhinovirus/Enterovirus
Influenza A
Middle East Respiratory
Syndrome Coronavirus (MERS-CoV)
Influenza B
Parainfluenza Virus

Respiratory Syncytial Virus

# ANTIMICROBIAL RESISTANCE GENES

Carbapenemases IMP KPC NDM OXA-48-like VIM ESBL CTX-M

Methicillin Resistance mec A/C and MREJ (MRSA)







Sample Type: 0.2 mL stool collected in Cary Blair transport medium CE-marked and US FDA-cleared

## 22 Targets in One Test

The BioFire® FilmArray® Gastrointestinal (GI) Panel tests stool in Cary Blair for the bacteria, viruses, and parasites commonly associated with gastroenteritis. Quickly identifying the probable pathogen can ensure appropriate treatment and patient management and help decrease infectious gastroenteritis, which can lead to severe illness or death.

## **Panel Menu**

#### **BACTERIA**

Campylobacter (jejuni, coli, and upsaliensis) Clostridioides (Clostridium) difficile (toxin A/B) Plesiomonas shigelloides Salmonella

Vibrio(parahaemolyticus,vulnificus,andcholerae) Vibrio cholerae

Yersinia enterocolitica

Diarrheagenic E.coli/Shigella

Enteroaggregative E.coli (EAEC) Enteropathogenic E.coli (EPEC)

Enterotoxigenic E.coli (ETEC) It/st

Shiga-like toxin-producing E.coli (STEC) stx1/stx2

E.coli O157

Shigella/Enteroinvasive E.coli (EIEC)

#### **VIRUSES**

Adenovirus F40/41 Astrovirus Norovirus GI/GII Rotavirus A Sapovirus (I, II, IV, and V)

#### **PARASITES**

Cryptosporidium Cyclospora cayetanensis Entamoeba histolytica Giardia lamblia





Sample Type: 0.2 mL of uncentrifuged cerebrospinal fluid (CSF) CE-marked and US FDA-cleared

## 14 Targets in One Test

The BioFire® FilmArray® Meningitis/Encephalitis (ME) Panel identifies the most common viral, bacteria, and yeast pathogens that cause infections in the central nervous system which, in some cases, can be life-threatening. Rapidly identifying the probable cause of these potentially severe conditions can allow faster decisions on appropriate therapy.

## **Panel Menu**

#### **BACTERIA**

Escherichia coli K1 Haemophilus influenzae Listeria monocytogenes Neisseria meningitidis Streptococcus agalactiae Streptococcuspneumoniae

#### **VIRUSES**

Cytomegalovirus (CMV)
Enterovirus (EV)
Herpes Simplex Virus 1(HSV-1)
Herpes Simplex Virus 2 (HSV-2)
Human Herpesvirus 6 (HHV-6)
Human Parechovirus (HPeV)

Varicella Zoster Virus (VZV)

#### **YEAST**

Cryptococcus neoformans/gattii







Sample Type: 0.2 mL positive blood culture media CE-marked and US FDA-cleared

## 43 Targets in One Test

The BioFire® Blood Culture Identification 2 (BCID2) Panel tests for the most common causes of bloodstream infections, including gram-positive, gram-negative, and yeast pathogens, and 10 antibiotic resistance genes. Quickly identifying the probable cause of bloodstream infections may help clinicians reduce the time to appropriate antimicrobial therapy and positively impact patient survival.

## **Panel Menu**

#### **GRAM-NEGATIVE BACTERIA**

Acinetobacter calcoaceticusbaumannii complex Bacteroides fragilis Enterobacterales

Enterobacter cloacae complex Escherichia coli Klebsiella aerogenes Klebsiella oxytoca Klebsiella pneumoniae group Proteus Salmonella

Haemophilus influenzae Neisseria meningitidis Pseudomonas aeruginosa Stenotrophomonas maltophilia

Serratia marcescens

#### **GRAM-POSITIVE BACTERIA**

Enterococcus faecalis Enterococcus faecium Listeria monocytogenes Staphylococcus

Staphylococcus aureus Staphylococcus epidermidis Staphylococcus lugdunensis

Streptococcus

Streptococcus agalactiae Streptococcus pneumoniae Streptococcus pyogenes

#### **YEAST**

Candida albicans
Candida auris
Candida glabrata
Candida krusei
Candida parapsilosis
Candida tropicalis
Cryptococcus neoformans/gattii

# ANTIMICROBIAL RESISTANCE GENES

Carbapenemases IMP KPC OXA-48-like NDM

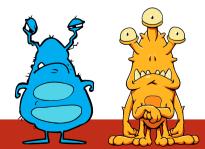
Colistin Resistance mcr-1

ESBL CTX-M

VIM

Methicillin Resistance mecA/C mecA/C and MREJ (MRSA)

Vancomycin Resistance vanA/B



C €zrsz



Sample Type: 0.2 mL of synovial fluid

\*Investigationaluseonly.Notforuseindiagnosticprocedures.CurrentlyunderFDAReview, panel menu subject to change. Not available for sale.

## 39 Targets in One Test

The proposed BioFire® Joint Infection (JI) Panel tests for common causes of prosthetic joint infections and septic arthritis. The BioFire JI Panel includes assays for 39 targets, including gram-positive bacteria, gram-negative bacteria, yeast, and antibiotic resistance genes.

## **Panel Menu**

#### **GRAM-POSITIVE BACTERIA**

Anaerococcus prevotii/vaginalis
Clostridium perfringens
Cutibacteriumavidum/granulosum
Enterococcus faecalis
Enterococcus faecium
Finegoldia magna
Parvimonas micra
Peptoniphilus
Peptostreptococcus anaerobius
Staphylococcus lugdunensis
Streptococcus spp.
Streptococcus agalactiae

Streptococcus pneumoniae

Streptococcus pyogenes

#### **GRAM-NEGATIVE BACTERIA**

Bacteroides fragilis
Citrobacter
Enterobacter cloacae complex
Escherichia coli
Haemophilus influenzae
Kingella kingae
Klebsiella aerogenes
Klebsiella pneumoniae group
Morganella morganii
Neisseria gonorrhoeae
Proteus Spp.
Pseudomonas aeruginosa
Salmonella Spp.

# YEAST Candida spp. Candida albicans

Serratia marcescens

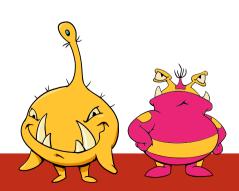
# ANTIMICROBIAL RESISTANCE GENES

Carbapenemases IMP KPC NDM 0XA-48-like VIM

ESBL CTX-M

Methicillin Resistance mecA/C and MREJ

Vancomycin Resistance vanA/B



# Peace of Mind All the Time.

## First in Diagnostics. First in Customer Care.

bioMérieux has a skilled team dedicated to client success. Our customer support team provides global product support, solution training courses, LIS connectivity assistance, and instrument or chemistry related troubleshooting. We are committed to the speedy resolution of all technical issues.



# International Support

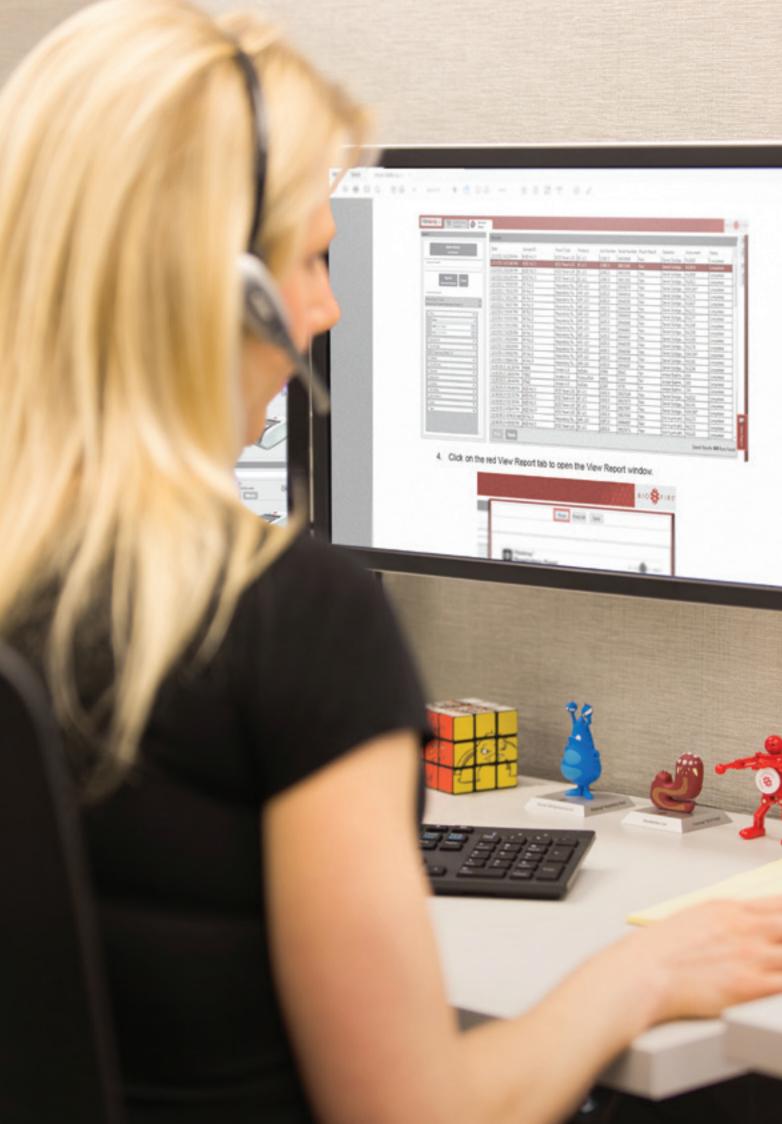
For international BioFire technical assistance and support, please contact your local bioMérieux representative or distributor.



## Help at Your Fingertips

With a complete suite of resources, our customers have access to everything they need for set-up, verification, and integration of the BioFire® FilmArray® System. Our website provides documents to assist with verification, EC Declarations of Conformity, and continuing education for all customers.

Visit **biofiredx.com** to find Advisory Notices, Information Sheets, Product Support Documents, and other resources.









The purchase of this product includes a limited, non-transferable license under specific claims of one or more US patents listed on the BioFire Diagnostics website (http://www.biofiredx.com/legal-notices/) owned by BioFire and/or the Research Foundation of The University of Utah. The blue logo, BioFire and FilmArray logos, and BIOMÉRIEUX, BIOFIRE, and FILMARRAY are used, pending, and/or registered trademarks belonging to bioMérieux or BioFire or one of their subsidiaries or companies. Document and/ or picture not legally binding. Modifications can be made without prior notice. No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without the express written permission of bioMérieux / BioFire Diagnostics.

bioMérieux S.A. 69280 Marcy l'Etoile

Tel.: +33 (0) 4 78 87 20 00

Fax: +33 (0) 4 78 87 20 90

Manufactured by: BioFire Diagnostics, LLC 515 Colorow Drive, Salt Lake City, UT 84108, USA BioFire is wholly owned by bioMérieux.

www.biofiredx.com