Quality Control Materials for use with BIOFIRE® FILMARRAY® and BIOFIRE® SPOTFIRE® Panels

Introduction

The Clinical Laboratory Improvement Amendments (CLIA), passed in 1988, establishes quality standards for all laboratory testing to ensure the accuracy and reliability of patient test results, regardless of where the test is performed. CLIA regulations require a laboratory to have quality control (QC) procedures to monitor the accuracy and precision of the complete testing process.

This document provides a listing of QC materials that have been tested at bioMérieux and are compatible with the BIOFIRE Panels indicated. The information in this document is meant to be a guideline and may not be inclusive.

For guidelines to assist your laboratory in developing an individualized quality control plan for BIOFIRE® FILMARRAY® and BIOFIRE® SPOTFIRE® Systems, please refer to the Example Individualized Quality Control Plan (IQCP) Risk Analysis for the following panels:

BIOFIRE® Blood Culture Identification 2 (BCID2) Panel: BFR0000-6645

BIOFIRE® FILMARRAY® Gastrointestinal (GI) Panel: FLM1-PRT-0218

BIOFIRE® Joint Infection (JI) Panel: BFR0000-9504

BIOFIRE® FILMARRAY® Meningitis/Encephalitis (ME) Panel: FLM1-PRT-0219

BIOFIRE® FILMARRAY® Pneumonia Panel: FLM2-PRT-0313

BIOFIRE® Respiratory Panel 2.1 (RP2.1): BFR0000-8660

BIOFIRE® Respiratory Panel 2.1 plus (RP2.1 plus): BFR000-8660

BIOFIRE® Respiratory Panel 2.1-EZ (RP2.1-EZ) (EUA)*: BFR000-8660

BIOFIRE® SPOTFIRE® Respiratory (R) Panel: BFR0001-2499

BIOFIRE® SPOTFIRE® Respiratory (R) Panel Mini: BFR0001-2499

BIOFIRE® SPOTFIRE® Respiratory/Sore Throat (R/ST) Panel: BFR0001-2499

- * · This product has not been FDA cleared or approved, but has been authorized for emergency use by FDA under an EUA for use by authorized laboratories:
- · This product has been authorized only for the detection and differentiation of nucleic acid of SARS-CoV-2 from multiple respiratory viral and bacterial organisms; and,
- · The emergency use of this product is only authorized for the duration of the declaration that circumstances exist justifying the authorization of emergency use of in vitro diagnostics for detection and/or diagnosis of COVID-19 under Section 564(b)(1) of the Federal Food, Drug, and Cosmetic Act, 21 U.S.C. § 360bbb-3(b)(1), unless the declaration is terminated or authorization is revoked sooner.



TECHNICAL ::: NOTE

- **Note:** The QC materials listed are appropriate for use with the panel described and may not be compatible with other BIOFIRE or SPOTFIRE Panels.
- Note: The use of routine quality control materials is not appropriate for verification of test method performance (COM.40300). Please refer to BIOFIRE Laboratory Verification Tech Notes for further instruction on verification protocols.
- Note: Adding commercial QC samples to transport media will dilute samples below the intended pathogen concentration and may lead to missed detections. In addition, QC samples should never be pooled prior to testing.

Quality Control Resources

Table 1. QC Materials for BIOFIRE BCID2 Panel

| BIOFIRE BCID2 Panel | | |
|---|---|-----------------------|
| Vendor | Product Name | Part Number |
| Maine Molecular Quality Controls, Inc. | FilmArray® BCID2 Control Panel | M416 ^{2,3} |
| Microbiologics | Blood Culture Identification Control Panel (43 Targets) | 8254 ^{1,3} |
| Streck LLC | MDx-Chex [®] for BCID2 | 250065 ^{2,3} |

¹For in vitro Diagnostic Use; an FDA cleared Class I Unassayed Control

Table 2. QC Materials for BIOFIRE GI Panel

| BIOFIRE GI Panel | | |
|---|---|-------------------|
| Vendor | Product Name | Part Number |
| Maine Molecular Quality Controls, Inc. | FilmArray [®] GI Control Panel | M238 ¹ |
| ZeptoMetrix, LLC | NATtrol™ GI Controls | NATGIC-BIO |

¹CE-IVD marked



² For in vitro Diagnostic Use; an FDA cleared class II Assayed Control

³CE-IVD marked

Table 3. QC Materials for BIOFIRE JI Panel

| BIOFIRE JI Panel | | |
|---|---------------------------------------|---------------------|
| Vendor | Product Name | Part Number |
| Maine Molecular Quality Controls, Inc. | BioFire [®] JI Control Panel | M420 ^{1,2} |

¹CE-IVD marked

Table 4. QC Materials for BIOFIRE ME Panel

| BIOFIRE ME Panel | | |
|--|--|-------------------|
| Vendor | Product Name | Part Number |
| Maine Molecular Quality Controls, Inc | BioFire [®] ME Control Panel | M262 ¹ |
| ZeptoMetrix, LLC | NATtrol™ Meningitis/Encephalitis (ME) Controls | NATMEC-BIO |

¹CE-IVD marked

Table 5. QC Materials for BIOFIRE PN and PNplus Panels

| BIOFIRE Pneumonia and Pneumonia plus Panels | | |
|---|---|-----------------------|
| Vendor | Product Name | Part Number |
| Maine Molecular Quality Controls, Inc. | FilmArray® Pneumonia/ Pneumonia <i>plus</i> Control | M340 ^{1,2.3} |

¹ For in vitro Diagnostic Use; an FDA cleared class II Assayed Control

Table 6. QC Materials for BIOFIRE® Respiratory Panel 2.1 (RP2.1), RP2.1plus, and RP2.1-EZ (EUA)*

| BIOFIRE RP2.1, RP2.1plus, RP2.1-EZ (EUA) | | |
|---|--|--|
| Vendor | Product Name | Part Number |
| Bio-Rad/Exact Diagnostics | EDX RP Positive Run Control/ RP Negative Run Control | RPPOS ^{1,3,4} / RPNEG ^{1,3} |
| Maine Molecular Quality Controls, Inc. | BioFire® RP2.1/RP2.1 <i>plus</i> Control Panel | M441 ^{2,3,4} |
| Microbiologics | Respiratory Control Panel (22 Targets) | 8247 ¹ |
| ZeptoMetrix, LLC | NATtrol™ Respiratory Panel 2.1 (RP2.1) Controls | NATRPC2.1-BIO |



² For in vitro Diagnostic Use; an FDA cleared class II Assayed Control

²Control contains MERS-CoV2 recombinant material

³CE-IVD marked



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- · This product has been authorized only for the detection and differentiation of nucleic acid of SARS-CoV-2 from multiple respiratory viral and bacterial organisms; and,
- The emergency use of this product is only authorized for the duration of the declaration that circumstances exist justifying the authorization of emergency use of in vitro diagnostics for detection and/or diagnosis of COVID-19 under Section 564(b)(1) of the Federal Food, Drug, and Cosmetic Act, 21 U.S.C. § 360bbb-3(b)(1), unless the declaration is terminated or authorization is revoked sooner.

Table 7. QC Materials for SPOTFIRE R Panel and SPOTFIRE R Panel Mini

| SPOTFIRE R Panel and SPOTFIRE R Panel Mini | | | |
|---|--|--|--|
| Vendor | Product Name | Part Number | |
| For use with the QC workflow | in CLIA-Waived or CLIA-Moderate setting¥ | | |
| Maine Molecular Quality Controls, Inc. | SPOTFIRE® RSP Positive Control | M42638 ² | |
| | SPOTFIRE® RSP Negative Control | M42738 ² | |
| For use with the patient workflow in CLIA-Moderate settings | | | |
| Bio-Rad/ Exact Diagnostics | EDX RP Positive Run Control/ RP Negative Run Control | RPPOS ^{1,3,4} / RPNEG ^{1,3} | |
| Microbiologics | Respiratory Control Panel (22 Targets) | 8247 ¹ | |
| ZeptoMetrix, LLC | NATtrol™ Respiratory Panel (RSP) Controls | NATRSPC-BIO | |

¹ For in vitro Diagnostic Use; an FDA cleared Class I Unassayed Control



¹ For in vitro Diagnostic Use; an FDA cleared Class I Unassayed Control

² For in vitro Diagnostic Use; an FDA cleared class II Assayed Control

³ CE-IVD marked

⁴ Control contains MERS-CoV2 recombinant material

² For in vitro Diagnostic Use; an FDA cleared class II Assayed Control

³ CE-IVD marked

⁴ Control contains MERS-CoV2 recombinant material

^{*} QC material is compatible with the QC workflow on the SPOTFIRE R Panel , the SPOTFIRE R Panel Mini, and the SPOTFIRE R/ST Panel and will produce a PASS or FAIL result.

Table 8. QC Materials for SPOTFIRE R/ST Panel

| SPOTFIRE R/ST Panel | | |
|---|---|---------------------|
| Vendor | Product Name | Part Number |
| For use with the QC workflow in CLIA-Waived or CLIA-Moderate setting [¥] | | |
| Maine Molecular Quality Controls, Inc. | SPOTFIRE® RSP Positive Control | M42638 ¹ |
| | SPOTFIRE® RSP Negative Control | M42738 ¹ |
| For use in the patient workflow in CLIA-Moderate settings | | |
| ZeptoMetrix, LLC | NATtrol™ Respiratory/Sore Throat (R/ST) Control | NATRSTC-BIO |



 ¹ For in vitro Diagnostic Use; an FDA cleared class II Assayed Control
[¥] QC material is compatible with the QC workflow on the SPOTFIRE R/ST Panel and will produce a PASS or FAIL result.



Technical Support Contact Information

bioMérieux is dedicated to providing the best customer support available. If you have any questions or concerns about this process, please contact the BIOFIRE Technical Support team for assistance.

BIOFIRE Technical Support Email: biofiresupport@biomerieux.com Phone: +1-801-736-6354, select Option 5

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