



May 2, 2022

Palwasha Basir
Regulatory Affairs Manager
Life Technologies (a part of Thermo Fisher Scientific Inc.)
5781 Van Allen Way
Carlsbad, CA 92008

Device: TaqPath COVID-19 RNase P Combo Kit 2.0

EUA Number: EUA210403

Company: Thermo Fisher Scientific Inc.

Indication: This test is authorized for the following indications for use:

Qualitative detection of nucleic acid from the SARS-CoV-2 in nasopharyngeal swabs and anterior or mid-turbinate nasal swabs from any individual including individuals without symptoms or other epidemiological reasons to suspect COVID-19.

Qualitative detection of nucleic acid from the SARS-CoV-2 in anterior nasal swab specimens that are collected using the Color COVID-19 Self-Swab Collection Kit with Saline when used consistent with its authorization.

Emergency use of this test is limited to authorized laboratories.

Authorized Laboratories: Laboratories certified under the Clinical Laboratory Improvement Amendments of 1988 (CLIA), 42 U.S.C. §263a, that meet requirements to perform high complexity tests.

Dear Ms. Basir:

On July 8, 2021, based on your¹ request, the Food and Drug Administration (FDA) issued a letter authorizing the emergency use of the TaqPath COVID-19 RNase P Combo Kit 2.0, pursuant to Section 564 of the Federal Food, Drug, and Cosmetic Act (the Act) (21 U.S.C. §360bbb-3) for the indication stated in the letter.² Based on your requests, FDA revised and

¹ For ease of reference, this letter will use the term “you” and related terms to refer to Thermo Fisher Scientific Inc.

² The July 8, 2021, letter authorized the TaqPath COVID-19 RNase P Combo Kit 2.0 for the qualitative detection of nucleic acid from the SARS-CoV-2 in nasopharyngeal swabs and anterior or mid-turbinate nasal swabs from individuals suspected of COVID-19 by their healthcare provider, as well as from individuals without symptoms or other epidemiological reasons to suspect COVID-19, when tested twice over 2 or 3 days with at least 24 hours (and no more than 36 hours) between tests. Testing was limited to laboratories certified under the Clinical Laboratory Improvement Amendments of 1988 (CLIA), 42 U.S.C. §263a, that meet requirements to perform high complexity tests.

reissued the letter on September 1, 2021³ and granted updates to the authorized labeling on March 1, 2022.⁴

On April 1, 2022, you requested to further revise your Emergency Use Authorization (EUA). Based on this request and having concluded that revising the September 1, 2021, EUA is appropriate to protect the public health or safety under section 564(g)(2)(C) of the Act, FDA is reissuing the September 1, 2021, letter in its entirety with the revisions incorporated.⁵ Pursuant to section 564 of the Act and the Scope of Authorization (Section II) and Conditions of Authorization (Section IV) of this reissued letter, your product⁶ is now intended for the indication described above.

On February 4, 2020, pursuant to Section 564(b)(1)(C) of the Act, the Secretary of the Department of Health and Human Services (HHS) determined that there is a public health emergency that has a significant potential to affect national security or the health and security of United States citizens living abroad, and that involves the virus that causes COVID-19. Pursuant to Section 564 of the Act, and on the basis of such determination, the Secretary of HHS then declared that circumstances exist justifying the authorization of emergency use of in vitro diagnostics for detection and/or diagnosis of the virus that causes COVID-19 subject to the terms of any authorization issued under Section 564(a) of the Act.⁷

FDA considered the totality of scientific information available in authorizing the emergency use of your product for the indication above. A summary of the performance information FDA relied upon is contained in the Instructions for Use (identified below).

³ On September 1, 2021, the revisions to the July 8, 2021, letter and authorized labeling included: (1) updates to the intended use to include testing of anterior nasal swab specimens that are collected using the Color COVID-19 Self-Swab Collection Kit with Saline when used consistent with its authorization and (2) addition or revision of Conditions P, R, and Z related to testing of anterior nasal swab specimens collected using the Color COVID-19 Self-Swab Collection Kit with Saline.

⁴ On March 1, 2022, your request was granted to (1) update the TaqPath COVID-19 RNase P Combo Kit 2.0 authorized labeling (the Instructions for Use (IFU) and Fact Sheet Healthcare Providers) in response to Condition of Authorization (1) in the Viral Mutation Revision Letter dated September 23, 2021, (2) update the IFU to provide more concise language for the instructions, and (3) update the results of the in silico inclusivity analysis. FDA has also updated the Healthcare Provider and Patient Fact Sheets to reflect more recent authorizations.

⁵ The revisions to the September 1, 2021, letter and authorized labeling include: (1) update the intended use to remove the requirement for serial testing of individuals without symptoms or other epidemiological reasons to suspect COVID-19 based on data submitted to fulfill Condition of Authorization Q. in the September 1, 2021 letter, the test is now intended for “*the qualitative detection of nucleic acid from the SARS-CoV-2 in nasopharyngeal swabs and anterior or mid-turbinate nasal swabs from any individual including individuals without symptoms or other epidemiological reasons to suspect COVID-19,*” (2) revise the performance section of the IFU with results of an updated in silico inclusivity analysis and the clinical data obtained through the evaluation in asymptomatic individuals, (3) minor updates to the IFU and/or Product Information Sheet related to the updated intended use and to align software and instrument nomenclature, (4) updates to the Fact Sheet for Healthcare Providers, the Fact Sheet for Patients and the Letter of Authorization to reflect the updated intended use and for consistency with more recent authorizations, and (5) removal of Condition of Authorization Q. from the September 1, 2021 letter that has been fulfilled.

⁶ For ease of reference, this letter will use the term “your product” to refer to the TaqPath COVID-19 RNase P Combo Kit 2.0 used for the indication identified above.

⁷ U.S. Department of Health and Human Services, *Determination of a Public Health Emergency and Declaration that Circumstances Exist Justifying Authorizations Pursuant to Section 564(b) of the Federal Food, Drug, and Cosmetic Act*, 21 U.S.C. § 360bbb-3. 85 FR 7316 (February 7, 2020).

Having concluded that the criteria for issuance of this authorization under Section 564(c) of the Act are met, I am authorizing the emergency use of your product, described in the Scope of Authorization of this letter (Section II), subject to the terms of this authorization.

I. Criteria for Issuance of Authorization

I have concluded that the emergency use of your product meets the criteria for issuance of an authorization under Section 564(c) of the Act, because I have concluded that:

1. The SARS-CoV-2 can cause a serious or life-threatening disease or condition, including severe respiratory illness, to humans infected by this virus;
2. Based on the totality of scientific evidence available to FDA, it is reasonable to believe that your product may be effective in diagnosing COVID-19, and that the known and potential benefits of your product when used for diagnosing COVID-19, outweigh the known and potential risks of your product; and
3. There is no adequate, approved, and available alternative to the emergency use of your product.⁸

II. Scope of Authorization

I have concluded, pursuant to Section 564(d)(1) of the Act, that the scope of this authorization is limited to the indication above.

Authorized Product Details

Your product is a real-time reverse transcription polymerase chain reaction (RT-PCR) test intended for the qualitative detection of nucleic acid from the SARS-CoV-2 in nasopharyngeal swabs and anterior or mid-turbinate nasal swabs any from individual including individuals without symptoms or other epidemiological reasons to suspect COVID-19. Your product test is also authorized for use with anterior nasal swab specimens that are collected using the Color COVID-19 Self-Swab Collection Kit with Saline when used consistent with its authorization. Testing is limited to laboratories certified under the Clinical Laboratory Improvement Amendments of 1988 (CLIA), 42 U.S.C. §263a, that meets requirements to perform high complexity tests.

Results are for the identification of SARS-CoV-2 RNA. The SARS-CoV-2 nucleic acid is generally detectable in upper respiratory specimens during the acute phase of infection. Positive results are indicative of the presence of SARS-CoV-2 RNA; clinical correlation with patient history and other diagnostic information is necessary to determine patient infection status. Positive results do not rule out bacterial infection or co-infection with other viruses. Negative results do not preclude SARS-CoV-2 infection and should not be used as the sole basis for

⁸ No other criteria of issuance have been prescribed by regulation under Section 564(c)(4) of the Act.

patient management decisions. Negative results must be combined with clinical observations, patient history, and epidemiological information.

To use your product, SARS-CoV-2 nucleic acid is first extracted, isolated and purified from nasopharyngeal swabs and anterior or mid-turbinate nasal swabs specimens. The purified nucleic acid is then reverse transcribed into cDNA followed by PCR amplification and detection using an authorized real-time (RT) PCR instrument. Your product includes the materials (or other authorized materials as may be requested under Condition K. below) described in the Instructions for Use.

Your product requires control materials (or other authorized control materials as may be requested under Condition K. below), that are processed and evaluated as described in the Instructions for Use.

Your product also requires the use of additional authorized materials and authorized ancillary reagents that are not included with your product and are described in the Instructions for Use.

The labeling entitled “TaqPath COVID-19 RNase P Combo Kit 2.0 Instructions for Use” and “TaqPath COVID-19 RNase P Combo Kit 2.0 Product Information Sheet” (available at <https://www.fda.gov/medical-devices/coronavirus-disease-2019-covid-19-emergency-use-authorizations-medical-devices/in-vitro-diagnostics-euas>), and the following fact sheets pertaining to the emergency use, is required to be made available as set forth in the Conditions of Authorization (Section IV), and are collectively referenced as “authorized labeling”:

- Fact Sheet for Healthcare Providers: Thermo Fisher Scientific Inc.- TaqPath COVID-19 RNase P Combo Kit 2.0
- Fact Sheet for Patients: Thermo Fisher Scientific Inc. - TaqPath COVID-19 RNase P Combo Kit 2.0

The above described product, when accompanied by the authorized labeling provided as set forth in the Conditions of Authorization (Section IV), is authorized to be distributed to and used by authorized laboratories under this EUA, despite the fact that it does not meet certain requirements otherwise required by applicable federal law.

I have concluded, pursuant to Section 564(d)(2) of the Act, that it is reasonable to believe that the known and potential benefits of your product, when used consistent with the Scope of Authorization of this letter (Section II), outweigh the known and potential risks of your product.

I have concluded, pursuant to Section 564(d)(3) of the Act, based on the totality of scientific evidence available to FDA, that it is reasonable to believe that your product may be effective in diagnosing COVID-19, when used consistent with the Scope of Authorization of this letter (Section II), pursuant to Section 564(c)(2)(A) of the Act.

FDA has reviewed the scientific information available to FDA, including the information supporting the conclusions described in Section I above, and concludes that your product (as described in the Scope of Authorization of this letter (Section II)) meets the criteria set forth in

Section 564(c) of the Act concerning safety and potential effectiveness.

The emergency use of your product under this EUA must be consistent with, and may not exceed, the terms of this letter, including the Scope of Authorization (Section II) and the Conditions of Authorization (Section IV). Subject to the terms of this EUA and under the circumstances set forth in the Secretary of HHS's determination under Section 564(b)(1)(C) of the Act described above and the Secretary of HHS's corresponding declaration under Section 564(b)(1) of the Act, your product is authorized for the indication above.

III. Waiver of Certain Requirements

I am waiving the following requirements for your product during the duration of this EUA:

- Current good manufacturing practice requirements, including the quality system requirements under 21 CFR Part 820 with respect to the design, manufacture, packaging, labeling, storage, and distribution of your product, but excluding Subpart H (Acceptance Activities, 21 CFR 820.80 and 21 CFR 820.86), Subpart I (Nonconforming Product, 21 CFR 820.90), and Subpart O (Statistical Techniques, 21 CFR 820.250).

IV. Conditions of Authorization

Pursuant to Section 564(e) of the Act, I am establishing the following conditions on this authorization:

Thermo Fisher Scientific Inc. (You) and Authorized Distributor(s)⁹

- A. Your product must comply with the following labeling requirements pursuant to FDA regulations: the intended use statement (21 CFR 809.10(a)(2), (b)(2)); adequate directions for use (21 U.S.C. 352(f)), (21 CFR 809.10(b)(5), (7), and (8)); appropriate limitations on the use of the device including information required under 21 CFR 809.10(a)(4); and any available information regarding performance of the device, including requirements under 21 CFR 809.10(b)(12).
- B. You and authorized distributor(s) must make your product available with the authorized labeling to authorized laboratories.
- C. You and authorized distributor(s) must make available on your website(s) the authorized labeling.
- D. You and authorized distributor(s) must include a physical copy of the “TaqPath COVID-19 RNase P Combo Kit 2.0 Product Information Sheet” with each shipped product to authorized laboratories, and must make the authorized “TaqPath COVID-19 RNase P Combo Kit 2.0 Instructions for Use” electronically available with the

⁹ “Authorized Distributor(s)” are identified by you, Thermo Fisher Scientific Inc., in your EUA submission as an entity allowed to distribute your product.

opportunity to request a copy in paper form, and after such request, you must promptly provide the requested information without additional cost.

- E. You and authorized distributor(s) must inform authorized laboratories and relevant public health authorities of this EUA, including the terms and conditions herein, and any updates made to your product and authorized labeling.
- F. Through a process of inventory control, you and authorized distributor(s) must maintain records of the authorized laboratories to which they distribute your product and number they distribute.
- G. You and authorized distributor(s) must collect information on the performance of your product. You will report to the Division of Microbiology (DMD)/Office of Health Technology 7 (OHT7)-Office of In Vitro Diagnostics and Radiological Health (OIR)/Office of Product Evaluation and Quality (OPEQ)/Center for Devices and Radiological Health (CDRH) (via email: CDRH-EUA- Reporting@fda.hhs.gov) any suspected occurrence of false positive or false negative results and significant deviations from the established performance characteristics of the product of which you become aware.
- H. You and authorized distributor(s) are authorized to make available additional information relating to the emergency use of your product that is consistent with, and does not exceed, the terms of this letter of authorization.

Thermo Fisher Scientific Inc. (You)

- I. You must notify FDA of any authorized distributor(s) of your product, including the name, address, and phone number of any authorized distributor(s).
- J. You must provide authorized distributor(s) with a copy of this EUA and communicate to authorized distributor(s) any subsequent amendments that might be made to this EUA and its authorized accompanying materials (e.g., Fact Sheets).
- K. You may request changes to this EUA for your product, including to the Scope of Authorization (Section II in this letter) or to the authorized labeling, including requests to make available additional authorized labeling specific to an authorized distributor. Such additional labeling may use another name for the product but otherwise must be consistent with the authorized labeling, and not exceed the terms of authorization of this letter. Any request for changes to this EUA should be submitted to DMD/OHT7-OIR/OPEQ/CDRH and require appropriate authorization from FDA prior to implementation.
- L. You must comply with the following requirements pursuant to FDA regulations: 21 CFR 820 Subpart H (Acceptance Activities, 21 CFR 820.80 and 21 CFR 820.86), Subpart I (Nonconforming Product, 21 CFR 820.90), and Subpart O (Statistical Techniques, 21 CFR 820.250).

- M. You must have lot release procedures and the lot release procedures, including the study design and statistical power, must ensure that the tests released for distribution have the clinical and analytical performance claimed in the authorized labeling.
- N. If requested by FDA, you must submit lot release procedures to FDA, including sampling protocols, testing protocols, and acceptance criteria, that you use to release lots of your product for distribution in the U.S. If such lot release procedures are requested by FDA, you must provide it within 48 hours of the request.
- O. You must evaluate the analytical limit of detection and assess traceability¹⁰ of your product with any FDA-recommended reference material(s). After submission to and concurrence with the data by FDA, you must update your labeling to reflect the additional testing. Such labeling updates will be made in consultation with, and require concurrence of, DMD/OHT7-OIR/OPEQ/CDRH.
- P. You will submit to FDA a summary report within 30 calendar days of authorization summarizing the results of any testing performed anterior nasal swab specimens collected with the Color COVID-19 Self-Swab Collection Kit with Saline authorized for use with your product, including how many specimens were received, how many specimens had to be rejected during accession and the main reasons for rejection, and the positivity rate for specimens collected with the authorized home-collection kit.
- Q. You must have a process in place to track adverse events, including with the Color COVID-19 Self-Swab Collection Kit with Saline, including any occurrence of false results with your product and report to FDA pursuant to 21 CFR Part 803. Serious adverse events, especially unexpected biosafety concerns, should immediately be reported to DMD/OHT7-OIR/OPEQ/CDRH (via email: CDRH-EUAREporting@fda.hhs.gov).
- R. You must evaluate the impact of SARS-CoV-2 viral mutations on your product's performance. Such evaluations must occur on an ongoing basis and must include any additional data analysis that is requested by FDA in response to any performance concerns you or FDA identify during routine evaluation. Additionally, if requested by FDA, you must submit records of these evaluations for FDA review within 48 hours of the request. If your evaluation identifies viral mutations that affect the stated expected performance of your device, you must notify FDA immediately.
- S. If requested by FDA, you must update your labeling within 7 calendar days to include any additional labeling risk mitigations identified by FDA, such as those related to the impact of viral mutations on test performance. Such updates will be made in consultation with, and require concurrence of, DMD/OHT7-OIR/OPEQ/CDRH.

Authorized Laboratories

¹⁰ Traceability refers to tracing analytical sensitivity/reactivity back to an FDA-recommended reference material.

- T. Authorized laboratories using your product must include with test result reports, all authorized Fact Sheets. Under exigent circumstances, other appropriate methods for disseminating these Fact Sheets may be used, which may include mass media.
- U. Authorized laboratories using your product must use your product as outlined in the authorized labeling. Deviations from the authorized procedures, including the authorized instruments, authorized extraction methods, authorized clinical specimen types, authorized control materials, authorized other ancillary reagents and authorized materials required to use your product are not permitted.
- V. Authorized laboratories that receive your product must notify the relevant public health authorities of their intent to run your product prior to initiating testing.
- W. Authorized laboratories using your product must have a process in place for reporting test results to healthcare providers and relevant public health authorities, as appropriate.
- X. Authorized laboratories must collect information on the performance of your product and report to DMD/OHT7-OIR/OPEQ/CDRH (via email: CDRH-EUA.Reporting@fda.hhs.gov) and you (techservices@thermofisher.com; 1 800 955 6288) any suspected occurrence of false positive or false negative results and significant deviations from the established performance characteristics of your product of which they become aware.
- Y. Authorized laboratories testing anterior nasal swab specimens that are collected using the Color COVID-19 Self-Swab Collection Kit with Saline must follow the standard operating procedure “Specimen Receipt and Handling for the Color COVID-19 Self-Swab Collection Kit with Saline” for specimen receipt and handling when accepting specimens for testing.
- Z. All laboratory personnel using your product must be appropriately trained in RT-PCR techniques and use appropriate laboratory and personal protective equipment when handling this kit and use your product in accordance with the authorized labeling.

Thermo Fisher Scientific Inc. (You), Authorized Distributor(s) and Authorized Laboratories

- AA. You, authorized distributor(s), and authorized laboratories using your product must ensure that any records associated with this EUA are maintained until otherwise notified by FDA. Such records will be made available to FDA for inspection upon request.

Conditions Related to Printed Materials, Advertising and Promotion

- BB. All descriptive printed matter, advertising, and promotional materials relating to the use of your product shall be consistent with the authorized labeling, as well as the terms set forth in this EUA and meet the applicable requirements set forth in section 502(a), (q)(1), and (r) of the Act, as applicable, and FDA implementing regulations.

CC. No descriptive printed matter, advertising, or promotional materials relating to the use of your product may represent or suggest that this test is safe or effective for the detection of SARS-CoV-2.

DD. All descriptive printed matter, advertising, and promotional materials relating to the use of your product shall clearly and conspicuously state that:

- This product has not been FDA cleared or approved, but been authorized for emergency use by FDA under an EUA for use by authorized laboratories;
- This product has been authorized only for the detection of nucleic acid from SARS-CoV-2, not for any other viruses or pathogens; 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.

The emergency use of your product as described in this letter of authorization must comply with the conditions and all other terms of this authorization.

V. Duration of Authorization

This EUA will be effective until the declaration that circumstances exist justifying the authorization of the emergency use of in vitro diagnostics for detection and/or diagnosis of COVID-19 is terminated under Section 564(b)(2) of the Act or the EUA is revoked under Section 564(g) of the Act.

Sincerely,

Jacqueline A. O'Shaughnessy, Ph.D.
Acting Chief Scientist
Food and Drug Administration

Enclosure