



June 2, 2020

Linda McCammack  
Senior Regulatory Program Manager  
Roche Diagnostics  
9115 Hague Road  
Indianapolis, IN 46250

Device: Elecsys IL-6

Company: Roche Diagnostics

Indication: Elecsys IL-6 immunoassay is an in vitro diagnostic test for the quantitative measurement of IL-6 (interleukin 6) in human serum and plasma. This assay is used to assist in identifying severe inflammatory response in patients with confirmed COVID-19 illness to aid in determining the risk of intubation with mechanical ventilation, in conjunction with clinical findings and the results of other laboratory testing. 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 the requirements to perform moderate complexity tests.

Dear Ms. McCammack:

This letter is in response to your<sup>1</sup> request that the Food and Drug Administration (FDA) issue an Emergency Use Authorization (EUA) for emergency use of your product,<sup>2</sup> pursuant to Section 564 of the Federal Food, Drug, and Cosmetic Act (the Act) (21 U.S.C. §360bbb-3).

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<sup>3</sup>. Pursuant to Section 564 of the

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<sup>1</sup> For ease of reference, this letter will use the term “you” and related terms to refer to Roche Diagnostics.

<sup>2</sup> For ease of reference, this letter will use the term “your product” to refer to the Elecsys IL-6 used for the indication identified above.

<sup>3</sup> 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).

Act, and on the basis of such determination, the Secretary of HHS then declared on March 24, 2020, that circumstances exist justifying the authorization of emergency use of medical devices during the COVID-19 outbreak, subject to the terms of any authorization issued under that section.<sup>4</sup>

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 treating COVID-19, by assisting in identifying severe inflammatory response in patients with confirmed COVID-19 illness to aid in determining the risk of intubation with mechanical ventilation, and that the known and potential benefits of your product when used for such use, 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.<sup>5</sup>

## **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 an in vitro diagnostic test for the quantitative measurement of IL-6 in human serum and plasma. This assay is used to assist in identifying severe inflammatory response in patients with confirmed COVID-19 illness to aid in determining the risk of intubation with mechanical ventilation, in conjunction with clinical findings and the results of other laboratory testing. Normal IL-6 results do not preclude development of a severe inflammatory response, and IL-6 should not be used as the sole basis for patient management decisions. Results must be combined with clinical observations, patient history, other laboratory parameters, and epidemiological information.

The test is performed using the Elecsys IL-6 on the cobas e 411, cobas e 601, cobas e 602, or cobas

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<sup>4</sup> U.S. Department of Health and Human Services, *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 17335 (March 27, 2020).

<sup>5</sup> No other criteria of issuance have been prescribed by regulation under Section 564(c)(4) of the Act.

e 801 analyzer. Anti-IL-6 specific antibodies are captured to the streptavidin coated solid phase microparticles with biotinylated anti-IL-6 specific antigen; the ruthenylated antigen mediates detection of the complex via electrochemiluminescence. The double-antigen sandwich complex is magnetically captured onto an electrode and the bound complex is washed. Application of voltage to the electrode induces chemiluminescence which is measured by a photomultiplier tube. Results are determined via a 2-point calibration and a cutoff formula. The Elecsys IL-6 includes the following materials or other authorized materials: Streptavidin-coated microparticles (M), anti-IL-6~biotin (R1), anti-IL-6 Ag~Ru(bpy) (R2). For quality control, external controls or other authorized controls are to be run as outlined in the Instructions for Use described below. 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 Elecsys IL-6 is authorized to be accompanied with the “Elecsys IL-6 Instructions for Use” (available at <https://www.fda.gov/medical-devices/emergency-situations-medical-devices/emergency-use-authorizations>) and the following product-specific information pertaining to the emergency use, which is required to be made available to healthcare providers and patients:

- Fact Sheet for Healthcare Providers: Elecsys IL-6
- Fact Sheet for Patients: Elecsys IL-6

The above described product, when accompanied by the Instructions for Use (identified above) and the two Fact Sheets (collectively referenced as “authorized labeling”) 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 for the quantitative measurement of IL-6 and used consistently 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 for treating COVID-19, by assisting in identifying severe inflammatory response in patients with confirmed COVID-19 illness to aid in determining the risk of intubation with mechanical ventilation when used consistently 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) described above and the Secretary of HHS's corresponding declaration under Section 564(b)(1), 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.

### **IV. Conditions of Authorization**

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

#### **Roche Diagnostics (You) and Authorized Distributor(s)<sup>6</sup>**

- A. Your product must comply with the following labeling requirements under 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) will make your product available with the authorized labeling to authorized laboratories. You may request changes to the authorized labeling. Such requests will be made in consultation with, and require concurrence of, DIHD/OHT7-OIR/OPEQ/CDRH.
- C. You and authorized distributor(s) will make available on your website(s) the Fact Sheet for Healthcare Providers and the Fact Sheet for Patients.
- D. You and authorized distributor(s) will inform authorized laboratories of this EUA, including the terms and conditions herein, and any updates made to your product or authorized labeling.
- E. Through a process of inventory control, you and authorized distributor(s) will maintain records of the authorized laboratories to which the test is distributed and the number of tests distributed.
- F. You and authorized distributor(s) will collect information on the performance of your product. You will report to FDA 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.

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<sup>6</sup> “Authorized Distributor(s)” are identified by you, Roche Diagnostics in your EUA submission as an entity allowed to distribute your device.

- G. 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.

**Roche Diagnostics (You)**

- H. You will notify FDA of any authorized distributor(s) of your product, including the name, address, and phone number of any authorized distributor(s).
- I. You will 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).
- J. You may request to make available additional authorized labeling, including fact sheets 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. Such requests will be made in consultation with, and require concurrence of, DIHD/OHT7-OIR/OPEQ/CDRH.
- K. You may request changes to the Scope of Authorization (Section II in this letter) of your product. Such requests will be made in consultation with DIHD/OHT7-OIR/OPEQ/CDRH, and require concurrence of, Office of Counterterrorism and Emerging Threats (OCET)/Office of the Chief Scientist (OCS)/Office of the Commissioner (OC) and DIHD/OHT7-OIR/OPEQ/CDRH.
- L. You may request the addition of other instruments and associated software for use with your product. Such requests will be made in consultation with, and require concurrence of, DIHD/OHT7-OIR/OPEQ/CDRH.
- M. You may request the addition of other ancillary methods for use with your product. Such requests will be made in consultation with, and require concurrence of, DIHD/OHT7-OIR/OPEQ/CDRH.
- N. You may request the addition of other specimen types for use with your product. Such requests will be made in consultation with, and require concurrence of, DIHD/OHT7-OIR/OPEQ/CDRH.
- O. You may request the addition and/or substitution of control materials for use with your product. Such requests will be made in consultation with, and require concurrence of, DIHD/OHT7-OIR/OPEQ/CDRH.
- P. You may request substitution for changes to the authorized materials used in the measurement process of IL-6 reagents and materials for use with your product. Such requests will be made in consultation with, and require concurrence of, DIHD/OHT7-OIR/OPEQ/CDRH.

- Q. You will evaluate the analytical limit of quantitation and assess traceability<sup>7</sup> of your product with any FDA-recommended reference material(s). FDA recommends standardization against the 1st International Standard NIBSC Code No: 89/548 for IL-6 assays. After submission to FDA and DIHD/OHT7-OIR/OPEQ/CDRH's review of and concurrence with the data, you will update labeling to reflect the additional testing. Such labeling updates will be made in consultation with, and require concurrence of, DIHD/OHT7-OIR/OPEQ/CDRH.
- R. You will track adverse events, including any occurrence of false results and report to FDA under 21 CFR Part 803.

### **Authorized Laboratories**

- S. Authorized laboratories using your product will include with test reports, all authorized Fact Sheets. Under exigent circumstances, other appropriate methods for disseminating these Fact Sheets may be used, which may include mass media.
- T. Authorized laboratories using your product will use your product as outlined in the Elecsys IL-6 Instructions for Use. 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.
- U. Authorized laboratories that receive your product will notify the relevant public health authorities of their intent to run your product prior to initiating testing.
- V. Authorized laboratories using your product will have a process in place for reporting test results to healthcare providers and relevant public health authorities, as appropriate.
- W. Authorized laboratories will collect information on the performance of your product and report to DIHD/OHT7-OIR/OPEQ/CDRH (via email: [CDRH-EUA-Reporting@fda.hhs.gov](mailto:CDRH-EUA-Reporting@fda.hhs.gov)) and you (<https://diagnostics.roche.com>) 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.
- X. All laboratory personnel using your product must be appropriately trained in automated immunoassay techniques and use appropriate laboratory and personal protective equipment when handling this kit, and use your product in accordance with the authorized labeling. All laboratory personnel using the assay must also be trained in and be familiar with the interpretation of results of the product.

### **Roche Diagnostics (You), Authorized Distributors and Authorized Laboratories**

- Y. You, authorized distributors, and authorized laboratories using your product will 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.

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<sup>7</sup> Traceability refers to tracing analytical sensitivity/reactivity back to an FDA-recommended reference material.

### **Conditions Related to Printed Materials, Advertising and Promotion**

- Z. All descriptive printed matter, including advertising and promotional materials, relating to the use of your product shall be consistent with the Fact Sheets and authorized labeling, as well as the terms set forth in this EUA and the applicable requirements set forth in the Act and FDA regulations.
- AA. No descriptive printed matter, including advertising or promotional materials, relating to the use of your product may represent or suggest that this test is safe or effective for the aid in management of COVID-19 patients.
- BB. All descriptive printed matter, including advertising and promotional materials, relating to the use of your product shall clearly and conspicuously state that:
- This test has not been FDA cleared or approved;
  - This test has been authorized by FDA under an EUA for use by authorized laboratories;
  - This test has been authorized only to assist in identifying severe inflammatory response, when used as an aid in determining the risk of intubation with mechanical ventilation in confirmed COVID-19 patients; and
  - This test is only authorized for the duration of the declaration that circumstances exist justifying the authorization of emergency use of medical devices under Section 564(b)(1) of the Act, 21 U.S.C. § 360bbb-3(b)(1), unless the authorization is terminated or 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 medical devices is terminated under Section 564(b)(2) of the Act or the EUA is revoked under Section 564(g) of the Act.

Sincerely,

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RADM Denise M. Hinton  
Chief Scientist  
Food and Drug Administration

Enclosures