

EC DECLARATION OF CONFORMITY

**Directive 98/79/EC of the European Parliament and of the Council of 27 October 1998 on
In Vitro Medical Diagnostic Devices**

Bioeksen AR GE Teknolojileri A.Ş. hereby declares under its own responsibility that the products covered by this declaration conform with "Essential Requirements" listed in Annex I of EC Directive 98/79/EC (IVD Directive). Supporting documentation (technical documentation) is retained under the premises of the manufacturer.

| | |
|------------------------------------|--|
| Manufacturer | : Bioeksen AR GE Teknolojileri Anonim Şirketi |
| Central Office | : Huzur Mah. Metin Oktay Cad. Nurol Life Sitesi D Blok No:3/31, 34396 Sarıyer/İstanbul TÜRKİYE |
| Manufacturing Site | : Huzur Mahallesi Metin Oktay Caddesi Nurol Life No:3/10, Sarıyer/İstanbul TÜRKİYE |
| | Web: www.bioeksen.com.tr, E-mail: info@bioeksen.com.tr |
| Product(s) Name | : Bio-Speedy® Respiratory Tract RT-qPCR MX-24T Panel |
| Description | : Bio-Speedy® Respiratory Tract RT-qPCR MX-24T Panel |
| | Ref No: BS-SY-MX24T-25 |
| | Ref No: BS-SY-MX24T-100 |
| Classification | : Other (Neither listed in the Annex II, Nor Self-testing device), GMDN code: 61527 - Multiple-type respiratory pathogen nucleic acid IVD, kit, nucleic acid technique (NAT) |
| | Article 9, paragraph 1 of EC Council Directive 98/79/EC on In Vitro Medical Diagnostic Devices |
| Conformity Assessment Route | : According to Annex III of the IVD Directive 98/79/EC |
| | EC declaration of conformity under manufacturer responsibility |
| Applied Standards | : All standards stated in the annex on the other page are strictly implemented in our company. |

We hereby declare that the above-mentioned product/s meet the provisions of the EC Council Directive 98/79/EC for in vitro medical diagnostic devices. All supporting documentation is retained under the premises of the manufacturer and the manufacturer is exclusively responsible for the declaration of conformity.

Signature: **BİOEKSEN AR GE TEKNOLOJİLERİ A.Ş.**
Huzur Mah. Metin Oktay Cad. Nurol Life D Blok
No: 3/31 Sarıyer / İSTANBUL
Maslak V.D. 176 093 2853 Tic. Sicil No: 904277-0
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Place of Issue: İstanbul

Valid from: 25.05.2022

Authorized Person: Canan Zöhre Ketre Kolukırık
Chairman of the Board

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Attachment List of Applied Standards

| No. | Title of standards | Contents |
|-----|------------------------|---|
| 1 | EN ISO 13485:2016 | Medical devices - Quality management systems - Requirements for regulatory purposes |
| 2 | EN ISO 14971:2019 | Medical devices – Application of risk management to medical devices |
| 3 | EN ISO 17511:2020 | In vitro diagnostic medical devices - Measurement of quantities in biological samples - Metrological traceability of values assigned to calibrators and control materials |
| 4 | EN 13612:2002 | Performance evaluation of in vitro diagnostic medical devices |
| 5 | EN ISO 23640:2015 | In vitro diagnostic medical devices – Evaluation of stability of in vitro diagnostic reagents |
| 6 | EN ISO 18113-1:2011 | In vitro diagnostic medical devices - Information supplied by the manufacturer (labelling) - Part 1: Terms, definitions, and general requirements |
| 7 | EN ISO 18113-2:2011 | In vitro diagnostic medical devices - Information supplied by the manufacturer (labelling) - Part 2: In vitro diagnostic reagents for professional use |
| 8 | EN ISO 15223-1:2021 | Medical devices - Symbols to be used with medical device labels, labelling and information to be supplied - Part 1: General requirements |
| 9 | IEC 62366-1:2015 | Medical devices — Part 1: Application of usability engineering to medical devices |
| 10 | CLSI MM3 A3: 3ED 2015 | Molecular Diagnostic Methods for Infectious Diseases |
| 11 | CLSI EP17 A2: 2ED 2012 | Evaluation of Detection Capability for Clinical Laboratory Measurement Procedures |
| 12 | CLSI EP07 3ED: 2018 | Interference Testing in Clinical Chemistry, 3rd Edition |
| 13 | CLSI EP5 A3: 3ED 2014 | Evaluation of Precision of Quantitative Measurement Procedures; Approved Guideline—Third Edition |

LETTER OF AUTHORIZATION

By this means, the manufacturer Bioeksen AR GE Teknolojileri A.Ş, located in Huzur Mah. Metin Oktay Cad. Nurol Life Sitesi No:3/31 Sarıyer - İstanbul, authorizes the company SRL SANMEDICO to have a registered office at A. Corobceanu Street 7A, apt. 9, Chişinău MD-2012, Moldova.

As our representative and distributor carry out the necessary procedures in Moldova for the registration, importation, distribution, sales, and promotion of the products manufactured and/or assembled by Bioeksen AR GE Teknolojileri A.Ş in the Country of Moldova.

This authorization is valid for 1 year from the date of signature.

Name: *Canan Z. Kette*

Firm: Bioeksen AR GE Teknolojileri A. Ş

Date: 3.02.2023

Position: *Executive Manager*

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Cat No: BS-SY-MX24T-25/BS-SY-MX24T-100

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Respiratory Tract RT-qPCR MX-24T Panel

Package Insert

Table 1. Kit Content

| Component | Intended Use | 25 Reactions | 100 Reactions |
|---|---|--------------|---------------|
| COVID/Flu Oligo Mix | Specific nucleic acid amplification and detection: FAM: SARS-CoV-2 HEX: Human (IC-Internal Control) ROX: Influenza B CY5: Influenza A | 1 x 125 µL | 1 x 500 µL |
| COR Oligo Mix | FAM: Human Coronavirus 229E HEX: Human Coronavirus OC43 ROX: Human Coronavirus NL63 CY5: Human Coronavirus HKU1 | 1 x 125 µL | 1 x 500 µL |
| PAR Oligo Mix | FAM: Human Parainfluenza 1 HEX: Human Parainfluenza 2 ROX: Human Parainfluenza 3 CY5: Human Parainfluenza 4 | 1 x 125 µL | 1 x 500 µL |
| MEA Oligo Mix | FAM: Human Metapneumovirus HEX: Human Enterovirus/Human Rhinovirus Oligo Set 1 CY5: Human Adenovirus | 1 x 125 µL | 1 x 500 µL |
| BPR Oligo Mix | FAM: Human Bocavirus ROX: Human Parechovirus CY5: Human Enterovirus/Human Rhinovirus Oligo Set 2 | 1 x 125 µL | 1 x 500 µL |
| LMC Oligo Mix | FAM: <i>Legionella pneumophila</i> ROX: <i>Mycoplasma pneumoniae</i> CY5: <i>Chlamydia pneumoniae</i> | 1 x 125 µL | 1 x 500 µL |
| HBS Oligo Mix | FAM: <i>Haemophilus influenzae</i> ROX: <i>Bordetella pertussis</i> CY5: <i>Streptococcus pneumoniae</i> | 1 x 125 µL | 1 x 500 µL |
| RSV Oligo Mix | FAM: Respiratory syncytial virus A/B | 1 x 125 µL | 1 x 500 µL |
| 2X Prime Script Mix | Optimized ready-to-use mix for RT-qPCR assay | 2 x 1000 µL | 7 x 1250 µL |
| PC-COVID/FLU / PC-COR / PC-PAR / PC-MEA / PC-BPR / PC-LMC / PC-HBS / PC-RSV | Positive Control (PC) | 1 x 100 µL | |
| NTC | Negative Control | 1 x 1000 µL | |

Table 2. Transport Condition, Storage Condition, and Shelf Life of the Components

| Component | Transport Condition | Storage Condition* | Shelf Life |
|---------------------|---------------------|---------------------|------------|
| 2X Prime Script Mix | (-22) °C – (+8) °C | (-22) °C – (-18) °C | 12 Months |
| Oligo Mix | | (-22) °C – (-18) °C | |
| NTC | | (+2) °C – (+8) °C | |
| PC | | (+2) °C – (+8) °C | |

*Each reagent stored at storage temperature can be used until the expiration date indicated on the tube following the first opening. The kit's expiration date is determined by the expiration date of the reagents

Table 3. Components Required but Not Included with The Test

| Components Required but Not Included with The Test | |
|--|---|
| 1. | Magnetic Induction Cycler (Mic) (Bio Molecular System - BMS) or/and CFX96 Touch™/CFX96™ Dx/CFX Opus 96™/CFX Opus 96™ Dx (Bio-Rad) Real-Time PCR systems |
| 2. | Micropipettes and compatible filtered pipette tips (nuclease-free) suitable for transferring 1-10, 10-100, and 100-1000 µL of liquid |
| 3. | A centrifuge or Mini-spin |
| 4. | Vortex |
| 5. | Reaction tubes and caps/films specific to qPCR instruments and compatible with reaction volume |

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Table 4. Intended Use, Test Principle, and Analytical Specifications

| | | | |
|--------------------------|---|--------------------------------------|---|
| Function | Aid to diagnosis | Sample Type(s) | Table 5 |
| Analyte(s) | Table 1 | Nucleic Acid Preparation Method(s) | Table 5 |
| Qualitative/Quantitative | Qualitative | Validated PCR Instrument(s) | Table 3 |
| Test Principle | Reverse transcription and Real-Time PCR (RT-qPCR) | Results Interpretation and Reporting | Automated (Sigmoida software) |
| Automated/Manual | Manual | Inclusivity and Exclusivity | Validated on the reference strains and the field isolates |
| Intended Users | Professional use | Limit of Detection (LoD) | Table 5 |
| Target Population | Individuals with the suspected infection | Sensitivity and Specificity | 98.95% and 99.13% |

Table 5. Collection, Storage, and Transfer of Clinical Specimens / Nucleic Acid Preparation Methods and the Respected LoD Values

| Sample Type** | Sample Transfer | Sample Storage | Nucleic Acid Preparation Method | LoD (cp/mL) |
|---|--|--|--|-------------|
| Combined nasopharyngeal and oropharyngeal swabs | NAT[®] Transfer Tube (Cat. No: BS-NA-513m/BS-NA-513) | 3 months at (+2) – (+8) °C 1 year at -20 °C | Nucleic acid preparation is not needed, samples can be used directly in RT-qPCR. | 250 |
| | Viral Transport Medium (VTM) (CDC SOP#: DSR-052-05 without antibiotics) | 3 days at (+2) – (+8) °C 1 year at -70 °C | RINA[™] M14 Nucleic Acid Extraction Device (Robot Model No: RINA-M14-01, Kit Cat. No: RN-NA-101) Zybio EXM3000 Nucleic Acid Isolation System (Robot Model No: EXM3000, Kit Cat. No: ZFNAE01) | 125 |
| Bronchoalveolar lavage, nasopharyngeal aspirate, and sputum | Preservative-free sterile containers | 3 days at (+2) – (+8) °C 1 year at -70 °C | | 500 |

**Clinical specimens should be collected by a healthcare provider in accordance with national/international clinical specimen collection regulations.

1. RT-qPCR Application Protocol


Before starting the assay, please consider the following:

- The kit was validated only for the template nucleic acid volume which is 25% of the total qPCR volume.
- The kit cannot be used with real-time PCR instruments without periodic maintenance records.
- The kit for Bio-Rad Real-Time PCR systems has been validated with white reaction tubes specific to these systems. Clear reaction tubes result in 5-10 times lower fluorescence signal in Bio-Rad instruments compared to white reaction tubes. In addition, device-specific reaction tubes should be used in the BMS device. The kit's stated analytical performance can only be achieved using validated tubes.
- To test for contamination, a negative control reaction containing NTC (Nuclease-free Water) must be set up in each run.

Program the qPCR device as follows and add the reagents into the qPCR tubes, close the tubes, place them into the qPCR instrument and start the run (Table 6)

Table 6. Reaction Setup and Real-Time PCR Program

| Reaction Setup | | RT-qPCR Program | | | | QR Code for Thermal Protocol and Plate Setup |
|---------------------------------|------------|---|--|----------------|----------|--|
| | | CFX96 Touch™/CFX96™ Dx/CFX Opus 96™/CFX Opus 96™ Dx (Bio-Rad) and Magnetic Induction Cycler (Mic) (Bio Molecular System - BMS) | | | | |
| Reagent | Volume/Rxn | Step | Cycle No. | Temperature | Duration | |
| 2X Prime Script Mix | 10 µL | Reverse Transcription | 1 Cycle | 52 °C | 3 min | |
| | | Pre-Incubation | 1 Cycle | 95 °C | 10 sec | |
| Oligo Mix | 5 µL | Denaturation | 12 Touchdown Cycles: | 95 °C | 1 sec | |
| | | Annealing and Extension | 1 °C decrement in annealing temperature per cycle | 67 °C to 56 °C | 15 sec | |
| Template Nucleic Acid/NTC/PC | 5 µL | Denaturation | 35 Cycles | 95 °C | 1 sec | |
| | | Annealing and Extension | | 55 °C | 15 sec | |
| Total Reaction Volume | 20 µL | Detection (Reading) | (FAM-Green)/(HEX-Yellow)/(ROX- Orange)/(CY5-Red) | | | |



https://www.bioeksen.com.tr/files/BS_TD_3RT153555

**WARNING:** The RT-qPCR thermal programs (Bio-Rad and BMS-Mic) and the plate setup (Bio-Rad) file should be downloaded from the QR code or link above.

2. Interpretation of the Assay Results with The "Sigmoida" Software


Result files must be opened with the "Sigmoida" software provided by the manufacturer, and the analysis must be performed automatically by the software. Below are examples of results that can be achieved with the Sigmoida software. Below are examples of results that can be achieved with the Sigmoida software;

Negative: The sample tested is negative for the tested agent.**Positive:** The sample tested is positive for the tested agent.**Contamination:** Repeat the analysis paying attention to the "Warnings and Limitations" section.**Invalid:** Sampling isn't successfully done or there is a problem during the sample transportation. A new sample from the same patient should be collected and tested again.**Reagent Problem:** Test the PCs provided with the kit setting up the PC reactions as shown in Table 6. If the test result is positive, the run is valid. In case the software generates a "Reagent Problem" again, contact the manufacturer.




















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3. Warnings and Limitations

- 
- False-negative results may occur if inadequate numbers (lower than the LoD) of organisms are present in the specimen.
 - Mutations within the target regions could affect primer and/or probe binding resulting in failure to detect the presence of agents.
 - Cotton or calcium alginate swabs or swabs with wooden sticks should not be used since they may contain substances that inactivate some pathogens and inhibit PCR.
 - A false-negative result may occur if a specimen is improperly collected, transported, or handled.
 - The clinical specimens shall be collected by a healthcare provider in accordance with the specimen collection guidelines.
 - Test procedures should be performed by personnel trained in the use of the kit.
 - Except for liquid transfers, sample tubes should always be kept closed.
 - Filtered and nuclease-free pipette tips should be used for sample transfer.
 - The components in the kit should not be used together with different lot numbers or chemicals of the same name but from different manufacturers.
 - The caps of the reaction tubes must not be opened after the PCR run.** The PCR tubes should be placed in a bag and thrown away after the bag is tightly closed.
 - The surfaces of the workbenches should be wiped with freshly diluted 10% bleach (0.5% NaClO) at the beginning and end of each day.
 - Disposal of waste must be carried out in accordance with local, state, and federal regulations.

4. Explanation of Symbol

| Symbol | Title of Symbol | Symbol | Title of Symbol | Symbol | Title of Symbol |
|--|------------------------------------|---|---|---|--|
|  | European Conformity CE Mark |  | Batch code |  | Keep away from sunlight |
|  | In vitro diagnostic medical device |  | Catalogue number |  | Protect from heat and radioactive sources |
|  | Manufacturer |  | Non-sterile |  | Do not use if package is damaged and consult <i>instructions for use</i> |
|  | Use-by date |  | Consult <i>instructions for use</i> or consult electronic <i>instructions for use</i> |  | Keep dry |
|  | Negative control |  | Caution |  | Keep upright |
|  | Positive control |  | Temperature limit |  | Contains sufficient for <n> tests |
|  | Control | | | | |

5. Manufacturer and Technical Support

Bioeksen AR GE Teknolojileri A.Ş

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