Intended Use

Qnostics’ Respiratory Target Multiplex 1 Control 01 is a panel containing 5 positive controls. The controls is a combination of 4 common respiratory pathogens, Influenza A Type H1N1 (INF A H1N1), Influenza B Type Victoria (INF B Victoria), Respiratory Syncytial Virus Type A (RSV A) and inactivated SARS-CoV-2 (SCV2) in a single vial. It is for research use only and intended to help laboratories develop their molecular assays and can assess their performance from extraction phase, through amplification to detection.

All assays exhibit some degree of variation or error (systemic or random) in their daily performance. What is important is that the laboratory understands what variation is acceptable and how that variation can be monitored and managed in the laboratory setting. The respiratory multiplex controls, combined with appropriate laboratory Statistical Process Control have proven to be very effective in the monitoring of laboratory assay performance, assay variation and the monitoring of assay reagents lots. They also help support a laboratory’s regulatory requirements under the standard ISO 15189:2012 or equivalent and help ensure the reliability of test results.

Principles of the Panel

The controls are manufactured to ISO standard 13485:2016. The samples were produced by making quantitative dilutions of whole virus into transport medium.

Samples are representative of clinical human specimens and are traceable to internal reference preparations in line with the requirements of ISO 17511:2003.

The Panels are suitable for use with the majority of commercial and in-house molecular methods. They can also be used to support the training and monitoring of new operators in line with laboratories quality management requirements.

Product Description and Performance Characteristics

The Panel consists of 5 x 0.7ml samples positive for INF A H1N1, INF B Victoria, RSV A, and SCV2, (see Table 1). The Panels are provided as liquid frozen in a ‘single-use’ tube format and must be processed immediately after thawing. The target concentrations of the Panel have been designed to be within the dynamic range of most molecular assays and are consistent within each lot and across batches.

Table 1: Panel Components and Characteristics

<table>
<thead>
<tr>
<th>Sample Code</th>
<th>Sample Description</th>
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<tbody>
<tr>
<td>RTX1QC01-QC</td>
<td></td>
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<tr>
<td></td>
<td>Influenza A Type H1N1</td>
</tr>
<tr>
<td></td>
<td>Influenza B Type Victoria</td>
</tr>
<tr>
<td></td>
<td>Respiratory Syncytial Virus Type A</td>
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<tr>
<td></td>
<td>SARS-CoV-2</td>
</tr>
</tbody>
</table>

IMPORTANT NOTE: The Panel has no assigned value. The actual Panel member quantification values may vary from those reported and are dependent on the evaluation procedure, the nucleic acid extraction and molecular assay used (see Limitations). It is the responsibility of the end user to establish their own target results for each of the Panel members using their laboratory’s molecular procedures for their specific molecular diagnostic assay and appropriate statistical control.

Warnings and Precautions

The SARS-CoV-2 used in the products listed above have been inactivated by heat treatment and gamma irradiation. The Panel contains whole virus and must only be handled by trained laboratory personnel and in accordance with Good Laboratory Practices, which must include the use of personal protective equipment (PPE). All residual materials must be treated as potentially hazardous and disposed of accordingly. This must be carried out according to the established procedures of the laboratory and in accordance with national and international regulations.

Do not pipette by mouth. Do not eat, drink or smoke when handling the samples or within laboratory spaces. Observe the expiration date for the Panels.

Hazard and Precautionary Statements: HIV, H3, H32, P202, P270, P280, P314

Additional Equipment Required but not Provided

The following equipment is not included:

- Personal Protective Equipment (PPE) - e.g. lab coat and gloves
- Biological safety cabinet
- Nucleic acid extraction kit used in accordance with the manufacturers’ instructions
- Molecular Amplification assay specific for INF A, INF B, RSV A and/or SCV2 used in accordance with the manufacturers’ instructions
- Bench vortexer
- Micro-centrifuge (12,000 RPM)
- Calibrated pipettes and sterile barrier filter tips

Procedure

- The Panel must be thawed at room temperature. Vortex briefly and spin down at 12,000 RPM for 30 seconds before opening the sample tube.
- The samples must then be treated in the same manner to that required by the laboratory for routine specimens, in the normal molecular procedure being assessed.

IMPORTANT NOTICE: Each panel member is intended for “single use” ONLY. After thawing and testing any surplus material must be disposed of according to laboratory procedures.

For technical queries please contact info@qnostics.com

Storage

The Panel must be stored within the recommended temperature range of -20/-80°C.

All samples within the Panel are intended for single use only. The re-freezing and repeated thawing of off label storage of the Panel is not recommended and may lead to variability in the results obtained.

Limitations

The Panel must not be used as a substitute for assay process controls and/or calibrators (Standards) provided by the manufacturer of the molecular assay.

This product is not an absolute reference material. The laboratory needs to establish its own target results using the Panel for their particular molecular assay system.

These products are labelled as Research Use Only and cannot be used as an in vitro diagnostic device for the management of human disease.

References


Centers for Disease Control (CDC). Recommendations for the prevention of HIV transmission in healthcare settings. MMWR 1987; 36, Supplement no. 25.


Symbols

Symbols used in the labelling of this product comply with BS EN ISO 15223-1:2016 Medical Devices – ‘Symbols to be used with medical device labels, labelling and information to be supplied’.