Instructions for use
RTP® Pathogen Kit

CE IVD

REF 1040500200
1040500300

Σ 50 preparations
250 preparations

Invitek Molecular GmbH
Robert-Rössle-Straße 10
13125 Berlin
Germany

INVITEK
Molecular

Important notes

Thank you for purchasing the **RTP® Pathogen Kit** from Invitek Molecular.

The product serves the purpose of manual isolation of nucleic acids (bacterial DNA, viral DNA/RNA) from a variety of clinical samples using Spin Column technology.

WARNING! Improper handling and use for other than the intended purpose can cause danger and damage. Therefore, we ask you to read through these instructions for use and follow them carefully. Always keep them handy. To avoid personal injury, also observe the safety instructions.

All versions of the instructions for use can be found on our website for download or can be requested from us: www.invitek-molecular.com

Contact:

Invitek Molecular GmbH

Robert-Rössle-Str. 10, 13125 Berlin, Germany

+ 49 30 9489 2908

www.invitek-molecular.com

Technical Support:

techsupport@invitek-molecular.com

The kit is in compliance with REGULATION (EU) 2017/746 on in vitro diagnostic medical devices. But it is not for in-vitro diagnostic use in countries where the REGULATION (EU) 2017/746 on in vitro diagnostic medical devices is not recognized.

Table of Contents

1. Safety instructions

Ensure that anyone using this product has received instructions in general safety practices for laboratories and the safety information provided in this document.

- When and while working with chemicals, always wear protective clothing, disposable gloves and safety glasses.
- Always change pipette tips between liquid transfers. To avoid cross-contamination, we recommend the use of aerosol-barrier pipette tips.
- Do not reuse any consumables.
- Discard gloves if they become contaminated.
- Do not combine components of different kits unless the lot numbers are identical.
- Avoid microbial contamination of the kit reagents.
- To minimize the risk of infections from potentially infectious material, we recommend working under laminar airflow until the samples are lysed.

Before handling chemicals read and understand all applicable Safety data Sheets (MSDS). These are available online at www.invitek-molecular.com.

Dispose of kit residues and waste fluids in accordance with your country's regulations, again refer to the MSDS. Invitek Molecular has not tested the liquid waste generated by the kit for residual infectious materials. Contamination of the liquid waste with residual infectious materials is highly unlikely but cannot be excluded completely. Therefore, liquid waste must be considered infectious and must be handled and disposed of according to local safety regulations.

European Community risk and safety phrases for the components of the **RTP® Pathogen Kit** to which they apply are listed below as follows:

Extraction Tube

Warning
H302-H315-H319-H335-H411-P280-P305+P351+P338-EUH208

Wash Buffer R1

Warning
H302-H332-H412-P280-P305+P351+P338-EUH032

H302: Harmful if swallowed.
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H332: Harmful if inhaled.
H335: May cause respiratory irritation.
H411: Toxic to aquatic life with long lasting effects.
H412: Harmful to aquatic life with long lasting effects.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
EUH208: Contains Proteinase, Tritirachium album-Serine. May produce an allergic reaction.
EUH032: Contact with acids liberates very toxic gas

Emergency medical information can be obtained 24 hours a day from infotrac, www.infotrac.net:

outside of USA: 1 – 352 – 323 – 3500
in USA: 1 – 800 – 535 – 5053

2. Product information

2.1 Kit contents

	50 purifications	250 purifications
Catalogue No.	1040500200	1040500300
Extraction Tube	50 vials	5 x 50 vials
Resuspension Buffer R	30 ml/bottle	150 ml/bottle
Binding Solution (fill with 99.7% Isopropanol)	empty bottle (Final volume 30 ml)	empty bottle (Final volume 120 ml)
Wash Buffer R1	20 ml/bottle	80 ml/bottle
Wash Buffer R2	12 ml/bottle (Final volume 60 ml)	50 ml/bottle (Final volume 250 ml)
Elution Buffer R	15 ml/bottle	60 ml/bottle
RTA Spin Filter Set	50 sets	5 x 50 sets
RTA Receiver Tubes	3 x 50 pieces	15 x 50 pieces
1.5 ml Receiver Tubes	50 pieces	5 x 50 pieces
Short Protocol	1 leaflet	1 leaflet

2.2 Reagents and equipment to be supplied by user

Lab equipment:

- Microcentrifuge (*all protocols were validated with a Centrifuge 5415 D Eppendorf)*
- Optional: centrifuge for 15 or 50 ml
- Thermo shaker (37°C - 95°C)
- Measuring cylinder (250 ml)
- Disposable gloves
- Pipette and pipette tips
- Vortex mixer
- Reaction tubes (1.5 ml, 2.0 ml)

Liquids and solvents:

- 1 x PBS to adjust sample volume
- 96 - 100 % ethanol (non-denatured)
- Isopropanol*
- Optional (for respiratory samples with high viscosity): saturated acetylcysteine (ACC) solution (200 mg/ml)

*The kit is validated with 2-Propanol; Rotipuran® >99.7%, p.a., ACS, ISO (Order no. 6752) from Carl Roth

*** Possible suppliers for Isopropanol:**

Carl Roth
2-Propanol
Rotipuran® >99.7%, p.a., ACS, ISO
Order no. 6752

Applichem
2-Propanol für die Molekularbiologie
Order no. A3928

Sigma
2-Propanol
Order no. 59304-1L-F

2.3 Storage, appearance and shelf life

Shelf life: All buffers and kit components should be stored at room temperature and have a shelf life as indicated on the outer kit package label.

After opening, individual components of the kit, as well as components prepared accordingly before first use, have a shelf life of 3 months.

Before each use, make sure that all components are at room temperature. If there are temperature-related precipitates in the solutions, dissolve them by carefully warming (up to 30°C).

Room temperature (RT) is defined as a range from 15-30°C.

Wash Buffer R1 and Wash Buffer R2: after adding ethanol, they should be firmly closed and stored at room temperature.

Binding Solution: after adding isopropanol, it should be firmly closed and stored at room temperature.

2.4 Intended use

The **RTP® Pathogen Kit** is a Spin Column technology based nucleic acid extraction kit, intended for the simultaneous isolation and purification of bacterial DNA and viral DNA/RNA.

The kit can be used for a variety of human sample types, such as serum and plasma (from blood stabilized in EDTA or citrate but not heparin), rinsed liquid from swabs, pre-treated sputum, BAL, tracheal secrete, supernatant from stool suspension, cultivated bacteria, cell culture supernatants, biopsy material/tissue, urine, and other cell-free body fluids.

The product is not intended to be used with heparinized blood samples. The product is intended for use by professionals only, such as laboratory technicians, physicians and biologists trained in molecular biological techniques and *in vitro* diagnostic procedures.

2.5 Product information and specifications

Starting material	Yield	Quality	Time
• Serum, plasma, other cell-free body liquids, urine • swabs (dry, stabilized) • supernatant from stool suspensions • cultivated bacteria • tracheal secrete, BAL, sputum • cell culture supernatant Up to 10 mg tissue sample	Depending on sample (storage and source)	depending on sample type, target nucleic acids	approx. 20 min (excl. lysis)

Yield and quality of purified nucleic acids depend on the sample type, sample source, transport, storage, age and the virus titer.

The kit is only suitable for plasma and serum samples that contain ETDA or citrate, not heparin, as an anticoagulant.

For determination of yield please note that nucleic acids purified with this kit contain Carrier RNA (5 µg per 200 µl sample), which account for most of the nucleic acids present in the eluate. Especially viral nucleic acids from biological sample material are usually very low concentrated and therefore almost impossible to be quantified photometrically. Quantitative RT-PCR is recommended for yield determination.

The **RTP® Pathogen Kit** provides an efficient procedure for isolation of high-quality nucleic acids. The kit is designed for simultaneous isolation of viral DNA/RNA, bacterial DNA via a lyse-bind-wash-elute Spin Column protocol.

Downstream Applications:
Yield and quality of isolated nucleic acids are in general suitable for plenty of molecular-diagnostic applications such as PCR techniques, NGS and hybridization methods. Downstream applications should be performed according to the respective manufacturers' specifications.

2.6 Principle and procedure

1. Lyse samples
The kit contains Extraction Tubes which contain a lyophilized mix of Carrier RNA, Proteinase K, lytic enzymes and Lysis Buffer to perform a 1-step sample lysis. To start the extraction procedure simply add the sample to the Extraction Tube.
Samples are lysed at different elevated temperatures while continuously shaking.

2. Bind nucleic acids
By adding Binding Solution to the lysate, optimal binding conditions are adjusted. Each lysate is then applied to an RTA Spin Filter and nucleic acids are adsorbed to the membrane.

3. Wash to remove residual contaminations
Contaminants are efficiently washed away using Wash Buffer R1 and Wash Buffer R2, while nucleic acids remain bound to the membrane.

4. Elute nucleic acids
Nucleic acids are eluted from the RTA Spin Filter using 60 - 200 µl Elution Buffer R.

3. Nucleic acid extraction with the RTP® Pathogen Kit

3.1 Before starting a protocol

When using the kit for the first time make sure all buffers and reagents are prepared as indicated:

Buffer preparations prior first use: 50 preparations
Binding Solution (empty bottle): Fill 30 ml **99.7% isopropanol** (molecular biology grade) into the bottle, always keep the bottle firmly closed. **Wash Buffer R1:** Add 20 ml of **99.7% isopropanol** to the bottle**.** Mix thoroughly, always keep the bottle firmly closed. **Wash Buffer R2:** Add 48 ml of **96 -100% ethanol** to the bottle. Mix thoroughly, always keep the bottle firmly closed.
Buffer preparations prior first use: 250 preparations
Binding Solution (empty bottle): Fill 120 ml **99.7% isopropanol** (molecular biologic grade) into the bottle, always keep the bottle firmly closed. **Wash Buffer R1:** Add 80 ml of **99.7% isopropanol** to the bottle**.** Mix thoroughly, always keep the bottle firmly closed. **Wash Buffer R2:** Add 200 ml of **96 -100% ethanol** to the bottle. Mix thoroughly, always keep the bottle firmly closed.

- Adjust the thermo shaker to 37°C.
- Adjust thermos shaker/heating blocks to 65°C and 95°C
- Warm up the needed amount of **Elution Buffer R** to 65°C (60 - 200 µl **Elution Buffer R** are needed per sample).
- Determine the number of required reactions including controls and label the needed amount of RTA Spin Filters (lid) and the needed amount of 1.5 ml Receiver Tubes (per sample: 1 Receiver Tube is needed).

Extraction control

Refer to the manufacturer's instructions to determine the optimal amount of extraction control for specific downstream applications.

Extraction control DNA or RNA should be added to the lysate after the heating step. For optimal purification efficiency, extraction control molecules should be longer than 100 nucleotides, as smaller molecules are not efficiently recovered.

3.2 Sampling and storage of starting material

For reproducible and high yields, the correct sample storage is essential. Yields may vary depending on factors such as health of the donor, sample age, sample type, transport and storage.

Repeated freeze-thaw cycles of samples should be avoided to prevent nucleic acid degradation. In general, best results are obtained using fresh samples. It is recommended to consider technical guidance such as e.g., CEN/TS and ISO standards on the pre-examination process for molecular diagnostics under IVDR as highlighted in G. Dagher, et al. (https://doi.org/10.1016/j.nbt.2019.05.002) .

Serum, plasma, other cell-free body liquids: Serum or plasma derived from venous whole blood (treated with anticoagulants like EDTA or citrate, but not with heparin), synovial fluid samples or other cell-free body fluids can be used for extraction. Whole blood should not be vortexed as to avoid hemolysis. Allow serum tubes to sit for at least 30 min before centrifugation. Follow blood collection system instructions for preparation of serum or plasma. It is recommended to separate plasma/serum through centrifugation within 12 h. Supernatants obtained using systems without gel separator should be transferred to fresh sample tubes. For short-term storage, samples can be kept on ice for 1-2 hours. For up to 24 h samples can be stored at -20°C. For long-term storage, freezing samples in aliquots at –80°C is recommended. Repeated freeze-thaw cycles may negatively affect sample integrity and cause e.g. denaturation/precipitation of proteins, potentially resulting in reduced yield, quality or viral titers. In addition, cryoprecipitates formed during thaw-freeze cycles can cause problems. If cryoprecipitate is visible, centrifuge at 6.800 x *g* for 3 min. The clear supernatant should be used immediately.

Swabs: Dry swabs: prepare the samples as described in the corresponding sample preparation method. Store dry at 4-8°C.

Swabs in stabilization medium: the stabilization liquid can be handled as cell-free body fluid. Please note that some stabilization agents may cause a reduced yield due to incompatibility with chemistry used in the kit. Store according to the manufacturer's requirements.

Stool samples: Samples contain DNases and RNases which can quickly cause DNA and RNA degradation. Therefore, samples should be stored frozen at – 80°C.

Cultivated bacteria: After cultivation bacteria must be pelleted and resuspended as described in the corresponding sample preparation method.

Urine: Depending on bacteria titre and application a starting volume of 15-50 ml urine is recommended. Centrifuge the sample to pellet bacteria and remove the supernatant completely (urea contaminations can inhibit PCR reactions). For some applications fresh urine can be used directly.

Tracheal secrete / BAL / Sputum: Samples contain DNases and RNases, which can quickly cause DNA and RNA degradation. Therefore, samples should be stored frozen at – 80°C.

Tissue Biopsies*:* Samples must be immediately frozen and stored at –20°C or –80°C. Repeated freezing and thawing must be avoided. The amount of purified DNA depends on the type of starting material. Thaw the sample in lysis mixture.

Cell culture supernatants: Prepare supernatant samples like other cell-free body fluid samples described in the corresponding sample preparation method.

3.3 Preparation of starting materials

In the following the preparation of the sample lysis for different starting materials is described. After the preparation of starting materials refer to chapter 3.5 “Protocol: Simultaneous isolation of bacterial DNA and viral DNA/RNA from liquid samples” to follow step 1a) or 1b) of the protocol to continue, unless stated otherwise.

3.3.1 Serum, plasma, other cell-free body liquids

Always mix the sample well before extraction.
Use up to 200 µl sample and adjust the volume to 400 µl with Resuspension Buffer R.

3.3.2 Swabs

a) Dry Swabs

Rinse the swabs in a suitable vial in the lowest possible volume of PBS or Resuspension Buffer R (for nasopharyngeal swabs about 400 µl, for oral swabs about 600 µl). Squeeze the swab to the inner wall of the vial to obtain as much sample as possible.

Use 400 µl for the extraction protocol.

Alternatively, put 400 µl Resuspension Buffer R to the Extraction Tube and rinse the swab directly in the dissolved lysis buffer.

b) Swabs in stabilization liquid

Use 200 µl of the stabilization solution and adjust the volume to a total of 400 µl with Resuspension Buffer R. Rinse and squeeze the swab to the inner wall of the vial before removing it.
Some stabilization media may interfere with the lysis reaction (if you have any questions, please refer to the FAQ or contact support).

3.3.3 Stool samples (supernatant)

a) Extraction of nucleic acids from viruses

To prepare supernatant transfer 100 µl / 100 mg stool sample into a 2 ml vial and add 900 µl Resuspension Buffer R. Vortex for 30 s followed by a 1 min centrifugation step at 12.000 x g. Use up to 200 µl supernatant and adjust the volume to 400 µl with Resuspension Buffer R. Avoid solid particles in the sample.

b) Extraction of bacterial DNA

To prepare supernatant transfer 100 µl / 100 mg stool sample into a 2 ml vial and add 300 µl Resuspension Buffer R. Vortex for 30 s followed by a 1 min centrifugation step at 1.000 x g. Use up to 200 µl supernatant and adjust the volume to 400 µl with Resuspension Buffer R. Avoid solid particles in the sample.

3.3.4 Cultivated bacteria

Transfer 1ml of the bacterial overnight culture into a 2.0 ml Safe-Lock-Tube. Centrifuge for 2 min at 10.000 x g and remove the supernatant completely. Resuspend the pellet in 400 µl Resuspension Buffer R.

3.3.5 Urine

Depending on bacteria titer and application a starting volume of 15-50 ml urine is recommended. Centrifuge the sample to pellet bacteria and remove the supernatant completely (urea contaminations can inhibit PCR reactions).
Resuspend the bacteria pellet in 400 µl Resuspension Buffer R.

For some applications fresh urine can be used directly: Use up to 200µl sample and adjust the volume to 400 µl with Resuspension Buffer R and start with the extraction protocol.

3.3.6 Tracheal secrete, BAL, sputum

a) Non-viscous or low viscosity samples

Always mix the sample well before extraction.
Use up to 200 µl sample and adjust the volume to 400 µl with Resuspension Buffer R.

b) Isolation of bacteria from viscous samples

Transfer 150 µl of the sputum sample or 1 ml tracheal secrete or BAL into a Safe- Lock-Tube and add 150 µl or 1 ml saturated acetylcysteine (ACC) solution respectively (ratio sample to buffer must be 1:1).
Incubate for 10 min at 95°C while continuously shaking.
Centrifuge at 10.000 x g for 5 min. Discard the supernatant.
Resuspend the bacterial pellet in 400 µl PBS or Resuspension Buffer R.

c) Isolation of viral DNA/RNA from viscous samples

Transfer 150 µl of the sample into a Safe-Lock-Tube and add 150 µl saturated acetylcysteine (ACC) solution to the sample (ratio sample to buffer must be 1:1).
Incubate for 10 min at 95°C while continuously shaking.
Allow the sample to cool down.
Use up to 200 µl sample and adjust the volume to 400 µl with Resuspension Buffer R.

3.3.7 Tissue Biopsies

Put 400 µl Resuspension Buffer R to the Extraction Tube. Add 1-10 mg tissue biopsy sample to the dissolved lysis buffer.
For lysis, disruption of hard to lyse tissue like cartilage, kidney, and heart muscle is recommended by bead beating with Zirconia beads.
After mechanical treatment incubate for 10 min at 65°C while continuously shaking.
Incubate for 10 min at 95°C while continuously shaking.
Centrifuge for 1 minute at 10.000 x g and transfer supernatant to a new tube. Avoid solid particles.

Follow step 2 of the protocol to continue

3.3.8 Cell culture supernatants

Use up to 200 µl sample and adjust the volume to 400 µl with Resuspension Buffer R.

3.4 Short protocol RTP® Pathogen Kit

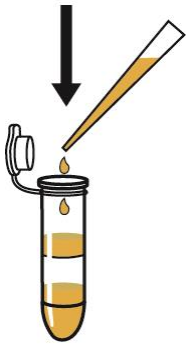
Lyse samples

Refer to chapter 3.3 “Preparation of starting material” for sample specific pre-treatment.

1. Add 400 µl of volume adjusted sample material to the Extraction Tube
   Perform the following heating steps on a thermomixer while continuously shaking:

   a) Simultaneous isolation of bacterial and viral nucleic acids:
   Incubate 10 min at 37°C
   Incubate 15 min at 65°C
   Optional: Incubate 10 min at 95°C

   b) Isolation of viral nucleic acids:
   Incubate 10 min at 65°C
   Optional: incubate 10 min at 95°C
   Please add the extraction control after lysis.



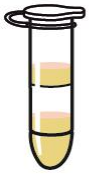
Bind nucleic acids

2. Add 400 µl **Binding Solution,** mix by pipetting up and down or vortexing.
   Transfer the sample into the RTA Spin Filter Set
   Incubate for 1 min
   Centrifuge for 2 min at 11.000 x g

   Discard the RTA Receiver Tube with filtrate and place the RTA Spin Filter into a new RTA Receiver Tube.

Wash to remove residual contaminations

3. Add 500 µl **Wash Buffer R1,** centrifuge 1 min at 11.000 x g
   Discard the RTA Receiver Tube with filtrate and place the RTA Spin Filter into a new RTA Receiver Tube.



4. Add 700 µl **Wash Buffer R2**, centrifuge 1 min at 11.000 x g
   Discard the RTA Receiver Tube with filtrate and place the RTA Spin Filter into a new RTA Receiver Tube.

5. Centrifuge 4 min at max. speed to remove residual ethanol
   Discard the RTA Receiver Tube with filtrate.

Elute nucleic acids

6. Place the Spin Filter into a 1.5 ml Receiver Tube
   Add 60 µl **Elution Buffer R** (preheated to 65°C) directly onto the RTA Spin Filter.
   Incubate 1 min at RT and centrifuge 1 min at 11.000 x g

   Discard the RTA Spin Filter and store eluted nucleic acids on ice.

3.5 Protocol: Simultaneous isolation of bacterial DNA and viral DNA/RNA from liquid samples

Please refer to chapter 3.3 “Preparation of starting material” for sample specific pre-treatment.

1. Add 400 µl sample material to the **Extraction Tube**. Depending on the starting material the sample volume must be adjusted to 400 µl with **Resuspension Buffer R** or PBS buffer, vortex shortly.

   Depending on sample type and target nucleic acid, perform steps in a) or b) on a thermos shaker while continuously shaking:

a) Isolation of bacterial DNA or simultaneous isolation of bacterial and viral nucleic acids

Incubate 10 min at 37°C.
Incubate 15 min at 65°C.
For difficult to lyse bacteria (e.g., Mycobacteria) or tissue additional incubation for 10 min. at 95°C is recommended.

b) Isolation of viral nucleic acids

Incubate 10 min at 65°C.
For difficult to lyse samples like tissue an additional incubation for 10 min at 95°C is recommended.

Note: *If you want to add nucleic acids for extraction control, please add them now, before the binding step.*

2. Add 400 µl **Binding Solution** and mix the sample completely by pipetting up and down or by vortexing.
   Transfer the sample into the RTA Spin Filter Set and incubate for 1 min.
   Centrifuge for 2 min at 11.000 x g.
   Discard the RTA Receiver Tube with filtrate and place the RTA Spin Filter into a new RTA Receiver Tube.
3. Add 500 µl **Wash Buffer R1** and centrifuge 1 min at 11.000 x g.
   Discard the RTA Receiver Tube with filtrate and place the RTA Spin Filter into a new RTA Receiver Tube.
4. Add 700 µl **Wash Buffer R2** to the RTA Spin Filter and centrifuge 1 min at 11.000 x g.
   Discard the RTA Receiver Tube with filtrate and place the RTA Spin Filter into a new RTA Receiver Tube.
5. Remove the residual ethanol by final centrifugation for 4 min at maximum speed.
   Discard the RTA Receiver Tube with filtrate.
6. Place the Spin Filter into a 1.5 ml Receiver Tube and add 60 µl of the **Elution Buffer R** (preheated to 65°C) directly onto the RTA Spin Filter surface.
   Incubate 1 min at RT and centrifuge 1 min at 11.000 x g.

4. Appendix

4.1 Troubleshooting

Problem	Possible cause	Recommendation
Low amount of nucleic acids	Insufficient cell lysis	Increase lysis time Continuous shaking improves lysis efficiency Reduce amount of starting material to avoid column overload
	Incomplete elution	Increase incubation time with preheated **Elution Buffer R** to 5-10 min Elute twice with 100 µl **Elution Buffer R** Use higher volume of **Elution Buffer R**
	Low nucleic acid-concentration in the sample	Elute nucleic acids with a lower volume of **Elution Buffer R**, do not use volumes below 40 µl
	Incorrect storage of starting material	Ensure that starting material is appropriately stored. Avoid repeated thaw-freeze cycles of the sample material.
	Wash Buffers were incorrectly prepared	Ensure, that the correct amount of ethanol/isopropanol is added to the Wash Buffers and that all solutions are stored firmly closed.
Degraded nucleic acids	Old material	Ensure that the starting material is stored at appropriate conditions (–20°C/-80°C).
	Ethanol carryover during elution	Increase time of drying step for removal of ethanol.
Nucleic acids do not perform well in downstream applications (e.g. real-time PCR or NGS)	Salt carry-over during elution	Check the **Wash Buffers** for salt precipitates. If there are any precipitates visible, solve them by carefully warming up to 30°C Ensure that the **Wash Buffers** are at room temperature before use.
	Insufficient cell lysis	See above
Coloured residues on the RTA Spin filter after washing	Inefficient washing	Repeat washing step
	Wash Buffers were incorrectly prepared	See above

4.2 Warranty

Invitek Molecular guarantees the correct function of the kit for applications described in this manual and in accordance with the intended use. In accordance with Invitek Molecular's EN ISO 13485 certified Quality Management System the performance of all kit components has been tested to ensure product quality.
Any problems, incidents or defects shall be reported to Invitek Molecular immediately upon detection. Immediately upon receipt, inspect the product to ensure that it is complete and intact. In the event of any discrepancies, you must inform Invitek Molecular immediately in writing. Modifications of the kit and protocols and use that deviate from the intended purpose are not covered by any warranty.

Invitek Molecular reserves the right to change, alter, or modify any product to enhance its performance and design at any time.
Invitek Molecular warrants products as set forth in the General Terms and Conditions available at www.invitek-molecular.com. If you have any questions, please contact techsupport@invitek-molecular.com.

4.3 Symbols used on product and labeling

 Manufacturer

 Lot number

 Unique identifier of a medical device

 Catalogue number

 Expiry date

 Consult operating instructions

 Temperature limitation

 Do not reuse

 Amount of sample preparations

 *in vitro* diagnostic medical device

4.4 Further documents and supplementary information

Visit www.invitek-molecular.com for further information on:

- FAQs and troubleshooting tips
- Manuals in different languages
- Safety data Sheets (MSDS)
- Web support
- Product videos

If, despite careful study of the operating instructions and further information, you still require assistance, please contact us at techsupport@invitek-molecular.com or the dealer responsible for you.

4.5 Ordering information

Product	Package Size	Catalogue No.
RTP® Pathogen Kit	50 preparations	1040500200
RTP® Pathogen Kit	250 preparations	1040500300

Revision history

Revision	Date	Description
EN-v1-2022	2022-05-18	New document
EN-v2-2022	2022-06-30	Form error concerning designation of Resuspension Buffer R

INVITEK
Molecular

Invitek Molecular GmbH
Robert-Rössle-Str. 10
13125 Berlin
Germany

Phone: +49 30 9489 2908
Fax: +49 30 9489 3795
info@invitek-molecular.com

www.invitek-molecular.com

https://www.invitek-molecular.com/resources/manuals.html

2022-06-30 EN-v2-2022