

virotype[®] Tissue Lysis Reagent Handbook



100 ml (catalog no. 289992)



250 ml (catalog no. 289993)

Tissue Lysis Reagent for fast lysis of various sample types

REF

289992, 289993



QIAGEN Leipzig GmbH, Deutscher Platz 5b, 04103 Leipzig, Germany



QIAGEN Sample and Assay Technologies

QIAGEN is the leading provider of innovative sample and assay technologies, enabling the isolation and detection of contents of any biological sample. Our advanced, high-quality products and services ensure success from sample to result.

QIAGEN sets standards in:

- Purification of DNA, RNA, and proteins
- Nucleic acid and protein assays
- microRNA research and RNAi
- Automation of sample and assay technologies

Our mission is to enable you to achieve outstanding success and breakthroughs. For more information, visit www.qiagen.com.

In addition, QIAGEN now offers high-quality, easy-to-use, and sensitive molecular solutions to enable animal pathogen identification and animal pathogen research. The QIAGEN animal pathogen portfolio includes a broad range of pathogen-specific PCR reagents.

Contents

Kit Contents	4
Intended Use	4
Storage	4
Symbols	5
Safety Information	5
Quality Control	6
Protocols	
■ Lysis of ear tissue samples	7
■ Lysis from avian swabs	9
Troubleshooting Guide	11
Ordering Information	12

Kit Contents

<i>virotype</i> Tissue Lysis Reagent		
Catalog no.	289992	289993
<i>virotype</i> Tissue Lysis Reagent	100 ml	250 ml
Handbook	1	1

Intended Use

virotype Tissue Lysis Reagent is an extraction reagent for the fast preparation of various sample types without nucleic acid extraction procedures. The *virotype* Tissue Lysis Reagent is designed and has been validated for fresh or dried ear tissue sample preparation from cattle (size of ear tissue Ø 2–3 mm) and for tracheal swabs (individual and pooled samples) from chicken and turkey. The lysis of other samples types may be possible but need to be validated by the customer.

Storage

The *virotype* Tissue Lysis Reagent should be stored at –15 to –30°C and is stable until the expiration date stated on the label. Freeze the components in aliquots if only used intermittently.

Symbols



Contains <N> volume



Legal manufacturer



Lot number



Use by date



Temperature limitations for storage



Handbook



Catalog number



Material number



Protect from light

Safety Information

When working with chemicals, always wear a suitable lab coat, disposable gloves, and protective goggles. For more information, please consult the appropriate safety data sheets (SDSs). These are available online in convenient and compact PDF format at www.qiagen.com/safety where you can find, view, and print the SDS for each QIAGEN kit and kit component.

All sample residues and objects which have come into contact with samples must be decontaminated or disposed of as potentially infective material.

24-hour emergency information

Chemical emergency or accident assistance is available 24 hours a day from:

CHEMTREC

USA & Canada ■ Tel: 1-800-424-9300

Outside USA & Canada ■ Tel: +1-703-527-3887 (collect calls accepted)

Quality Control

In accordance with QIAGEN's ISO-certified Quality Management System, each lot of *virotype* Tissue Lysis Reagent is tested against predetermined specifications to ensure consistent product quality.

Protocol 1: Lysis of ear tissue samples

Attention:

This protocol has only been validated for ear tissue samples from cattle (2–3mm diameter) and the subsequent downstream application using *virotype* BVDV RT-PCR Kit*.

Procedure

1. Bring *virotype* Tissue Lysis Reagent to room temperature (18–25°C) before use. Calculate and take the volume needed and freeze the remaining lysis buffer.
2. Add 200 µl *virotype* Tissue Lysis Reagent to each ear tissue sample (Ø 2–3 mm) directly into the sampling device.
3. Close the tubes with the corresponding caps or with aluminum sealing foil, appropriate for heat incubations.
4. Incubate the sample as shown in Table 1.

Table 1. Incubation times

Step	Temperature	Time
1	65°C ^{†‡}	30 min
2	98°C [†]	15 min

[†] Perform incubation in drying oven or sterilizing oven. Heating blocks are recommended for well-fitting reaction tubes only.

[‡] Incubation time can be extended up to 10 minutes.

* Not available in the USA or Canada.

5. Allow the sample to cool down for 5 min at 2–8°C (e.g., on ice).
6. Process lysates quickly. Lysates which will not be tested immediately can be stored up to 12 h at 2–8°C or up to 6 months at –15 to –30°C.

Pooling

After lysis of individual ear tissue samples is completed, pool equal volumes (at least 10 µl) of the lysates and mix (e.g., pools of 20: pool 10 µl of 20 lysates respectively [200 µl total pool sample volume]).

Real-time RT-PCR

virotype Tissue Lysis Reagent has only been validated in combination with *virotype* BVDV RT-PCR Kit.

5 µl of each pool/lysate is tested directly with *virotype* BVDV RT-PCR Kit. In rare cases, depending on sample quality, testing of lysates of individual samples can result in invalid tests as a consequence of PCR inhibition (neither FAM fluorescence nor HEX fluorescence is detected). In such cases it is recommended to mix 2.5 µl of lysate with 2.5 µl RNase-free water and to retest.

Thaw frozen lysates at room temperature and gently mix the sample by drawing the sample into a pipet tip and expelling back into the sampling device and repeating the process once or twice before use.

Protocol 2: Lysis from avian swabs

Procedure

1. Bring *virotype* Tissue Lysis Reagent to room temperature (18–25°C) before use. Calculate and take the volume needed and freeze the remaining lysis buffer.
2. Dilute *virotype* Tissue Lysis Reagent 1:5 in nuclease free-water or phosphate buffered saline. Alternatively, *virotype* Tissue Lysis Reagent can be used undiluted.
3. Place the swab in a suitable, disposable reaction tube (see Table 2).
4. Add *virotype* Tissue Lysis Reagent to each reaction tube. Ensure all swabs are completely covered by the *virotype* Tissue Lysis Reagent (Table 2).

Table 2. Swab types

	Single sample	Pools		
		Thin swab	Thick swab	
Reaction tube	2 ml	2 ml	15 ml round bottomed tube	
Swabs	1	2–5	2–3	4–5
Lysis buffer	500 µl	500 µl	1000 µl	1500 µl

5. Close the reaction tubes with the corresponding cap and briefly vortex.
6. Incubate the sample as shown in Table 3.

Table 3. Incubation times

Step	Temperature	Time
1	65°C*†	30 min
2	98°C*	15 min

* Perform incubation in drying oven or sterilizing oven. Heating blocks are recommended for well-fitting reaction tubes only.

† Incubation time can be extended up to 10 minutes.

7. Allow the sample to cool down for 5 min at 2–8°C (e.g., on ice).
8. Process lysates quickly. Lysates which will not be tested immediately can be stored up to 5 days at 2–8°C or up to 6 months at –15 to –30°C.

Pooling

For testing pools of up to 10 swabs, take equal volumes of the lysates after completed lysis and mix them well (at least 10 µl of each lysate).

Real-time PCR

5 µl of each lysate/pool is tested directly with *bactotype* Mycoplasma Mg/Ms PCR Kit[‡]. In rare cases, depending on sample quality, testing of lysates of individual samples can result in invalid tests as a consequence of PCR inhibition (no fluorescence is detected). In such cases it is recommended to mix 2.5 µl of lysate with 2.5 µl nuclease-free water and to retest. Thaw frozen lysates at room temperature and briefly vortex the samples.

[‡] Not available in the USA or Canada.

Troubleshooting Guide

The scientists in QIAGEN Technical Services are always happy to answer any questions you may have about either the information and/or protocols in this handbook or sample and assay technologies (for contact information, see back cover or visit www.qiagen.com).

Ordering Information

Product	Contents	Cat. no.
<i>virotype</i> Tissue Lysis Reagent (100 ml)	100 ml Tissue Lysis Reagent	289992
<i>virotype</i> Tissue Lysis Reagent (250 ml)	250 ml Tissue Lysis Reagent	289993
Related products		
<i>virotype</i> BVDV RT- PCR Kit (96)*†	For 96 reactions: PCR Mix, Enzyme Mix, Positive Control, Negative Control	280375
<i>bactotype</i> Mycoplasma Mg/Ms PCR Kit (96)*†	For 96 reactions: Master Mix, Positive Control, Negative Control	288105

*Not available in the USA or Canada.

† Other kit sizes are available; see www.qiagen.com.

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual. QIAGEN kit handbooks and user manuals are available at www.qiagen.com or can be requested from QIAGEN Technical Services or your local distributor.

Notes

Trademarks: QIAGEN®, *bactotype*®, *virotype*® (QIAGEN Group). Registered names, trademarks, etc. used in this document, even when not specifically marked as such, are not to be considered unprotected by law.

Limited License Agreement for *virotype* Tissue Lysis Reagent.

Use of this product signifies the agreement of any purchaser or user of the product to the following terms:

1. The product may be used solely in accordance with the protocols provided with the product and this handbook and for use with components contained in the kit only. QIAGEN grants no license under any of its intellectual property to use or incorporate the enclosed components of this kit with any components not included within this kit except as described in the protocols provided with the product, this handbook, and additional protocols available at www.qiagen.com. Some of these additional protocols have been provided by QIAGEN users for QIAGEN users. These protocols have not been thoroughly tested or optimized by QIAGEN. QIAGEN neither guarantees them nor warrants that they do not infringe the rights of third-parties.
2. Other than expressly stated licenses, QIAGEN makes no warranty that this kit and/or its use(s) do not infringe the rights of third-parties.
3. This kit and its components are licensed for one-time use and may not be reused, refurbished, or resold.
4. QIAGEN specifically disclaims any other licenses, expressed or implied other than those expressly stated.
5. The purchaser and user of the kit agree not to take or permit anyone else to take any steps that could lead to or facilitate any acts prohibited above. QIAGEN may enforce the prohibitions of this Limited License Agreement in any Court, and shall recover all its investigative and Court costs, including attorney fees, in any action to enforce this Limited License Agreement or any of its intellectual property rights relating to the kit and/or its components.

For updated license terms, see www.qiagen.com.

© 2013 QIAGEN, all rights reserved.

www.qiagen.com

Australia ■ techservice-au@qiagen.com

Austria ■ techservice-at@qiagen.com

Belgium ■ techservice-bnl@qiagen.com

Brazil ■ suportetecnico.brasil@qiagen.com

Canada ■ techservice-ca@qiagen.com

China ■ techservice-cn@qiagen.com

Denmark ■ techservice-nordic@qiagen.com

Finland ■ techservice-nordic@qiagen.com

France ■ techservice-fr@qiagen.com

Germany ■ techservice-de@qiagen.com

Hong Kong ■ techservice-hk@qiagen.com

India ■ techservice-india@qiagen.com

Ireland ■ techservice-uk@qiagen.com

Italy ■ techservice-it@qiagen.com

Japan ■ techservice-jp@qiagen.com

Korea (South) ■ techservice-kr@qiagen.com

Luxembourg ■ techservice-bnl@qiagen.com

Mexico ■ techservice-mx@qiagen.com

The Netherlands ■ techservice-bnl@qiagen.com

Norway ■ techservice-nordic@qiagen.com

Singapore ■ techservice-sg@qiagen.com

Sweden ■ techservice-nordic@qiagen.com

Switzerland ■ techservice-ch@qiagen.com

UK ■ techservice-uk@qiagen.com

USA ■ techservice-us@qiagen.com

