Applied Biosystems

# PrepSEQ™ Rapid Spin Sample Preparation Kits

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# Contents

# Safety information

**Note:** For general safety information, see this Preface and Appendix A, "Safety" on page 15. When a hazard symbol and hazard type appear by a chemical name or instrument hazard, see the "Safety" Appendix for the complete alert on the chemical or instrument.

## Safety alert words

Four safety alert words appear in Applied Biosystems user documentation at points in the document where you need to be aware of relevant hazards. Each alert word—**IMPORTANT, CAUTION, WARNING, DANGER**—implies a particular level of observation or action, as defined below:

**IMPORTANT!** – Indicates information that is necessary for proper instrument operation, accurate chemistry kit use, or safe use of a chemical.

**CAUTION!** – Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

**WARNING!** – Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury.

**DANGER!** – Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations.

## MSDSs

The MSDSs for any chemicals supplied by Applied Biosystems or Ambion are available to you free 24 hours a day. For instructions on obtaining MSDSs, see Appendix A.

**IMPORTANT!** For the MSDSs of chemicals not distributed by Applied Biosystems or Ambion contact the chemical manufacturer.

# How to use this guide

### Text conventions

This guide uses the following conventions:

- **Bold** text indicates user action. For example:

  Type **0**, then press **Enter** for each of the remaining fields.
- *Italic* text indicates new or important words and is also used for emphasis. For example:

  Before analyzing, *always* prepare fresh matrix.
- A right arrow symbol ( ▸ ) separates successive commands you select from a drop-down or shortcut menu. For example:

  Select **File ▸ Open ▸ Spot Set**.

  Right-click the sample row, then select **View Filter ▸ View All Runs**.

### User attention words

Two user attention words appear in Applied Biosystems user documentation. Each word implies a particular level of observation or action as described below:

**Note:** – Provides information that may be of interest or help but is not critical to the use of the product.

**IMPORTANT!** – Provides information that is necessary for proper instrument operation, accurate chemistry kit use, or safe use of a chemical.

# How to obtain support

For the latest services and support information for all locations, go to **www.appliedbiosystems.com**.

At the Applied Biosystems web site, you can:

- Access worldwide telephone and fax numbers to contact Applied Biosystems Technical Support and Sales facilities
- Search through frequently asked questions (FAQs)
- Submit a question directly to Technical Support
- Order Applied Biosystems user documents, MSDSs, certificates of analysis, and other related documents
- Download PDF documents
- Obtain information about customer training
- Download software updates and patches

# PrepSEQ™ Rapid Spin Sample Preparation Kits



## Product overview

The PrepSEQ™ Rapid Spin Sample Preparation Kits provide a simple way to prepare DNA from broth cultures.

## Required materials

### Kit contents

The PrepSEQ™ Rapid Spin Sample Preparation Kits contain reagents for 100 sample preparations. Kit components are shown in the table below. For information on the kit contents, refer to the "Materials supplied" section in the packaging insert for your kit.

| Kit | Item | Quantity or volume |
|---|---|---|
| **Kits without Proteinase K** | | |
| PrepSEQ™ Rapid Spin Sample Preparation Kit (PN 4407760) | Spin columns | 100 |
| | Microcentrifuge tubes, 1.5 mL | 100 |
| | Lysis Buffer, 1 bottle | 5 mL |
| PrepSEQ™ Rapid Spin Sample Preparation Kit – Extra Clean (PN 4413269) | Spin columns | 100 |
| | Microcentrifuge tubes, 1.5 mL | 2 × 100 |
| | Lysis Buffer, 1 bottle | 5 mL |
| **Kits with Proteinase K for difficult-to-lyse bacteria‡** | | |
| PrepSEQ™ Rapid Spin Sample Preparation Kit with Proteinase K (PN 4426714) | Spin columns | 100 |
| | Microcentrifuge tubes, 1.5 mL | 100 |
| | Lysis Buffer, 1 bottle | 5 mL |
| | Proteinase K‡ (20 mg/mL), 1 tube | 1.25 mL |
| PrepSEQ™ Rapid Spin Sample Preparation Kit – Extra Clean with Proteinase K (PN 4426715) | Spin columns | 100 |
| | Microcentrifuge tubes, 1.5 mL | 2 × 100 |
| | Lysis Buffer, 1 bottle | 5 mL |
| | Proteinase K‡ (20 mg/mL), 1 tube | 1.25 mL |

‡ for use with the protocol for difficult-to-lyse bacteria, such as *Listeria* spp.

**Note:** Parts may ship separately depending on the configuration ordered and storage conditions.

## Storage

- Store Proteinase K at –20 °C.
- Store Lysis Buffer at 4 °C.
- Store spin columns and tubes at room temperature (22 to 28 °C).

For information on storage of individual kit components, refer to the "Storage" section in the packaging insert for your kit.

## Materials not included in the kit

The following table includes materials and equipment for using (but not included in) the PrepSEQ™ Rapid Spin Sample Preparation Kits. Unless otherwise indicated, many of the listed items are available from major laboratory suppliers (MLS).

**Equipment, consumables, and reagents**

| Item | Source |
|---|---|
| **Equipment** | |
| Block heater, 95 °C | MLS |
| Block heater, 56 °C‡ | MLS |
| Rack for 1.5-mL tubes | MLS |
| Benchtop microcentrifuge (Eppendorf 5415 D or equivalent) | MLS |
| Stomacher 400 Laboratory Blender | Seward #0400/001/AJ |
| Vortexer | MLS |
| **Consumables** | |
| Disposable gloves | MLS |
| Micropipette tips, aerosol-resistant | MLS |
| Pipettors:<br>• Positive-displacement<br>• Air-displacement | MLS |
| Whirl-Pak Filter Bags, 6" × 9", 24 oz, 250/pkg (Stomacher bags with mesh) | VWR #11216-520 |
| Whirl-Pak Filter Bags, 6" × 9", 24 oz (Stomacher bags without mesh) | VWR #11216-280 |
| **Reagents** | |
| Bacterial growth media§ | MLS |

**Equipment, consumables, and reagents *(continued)***

| Item | Source |
|---|---|
| Nuclease-free Water | Applied Biosystems PN AM9938 |

‡ for use with protocol for difficult-to-lyse bacteria, such as *Listeria* spp.
§ microorganism appropriate

# Food sample preparation

## Overview

The PrepSEQ™ Rapid Spin Sample Preparation Kits are designed to work with most food types. The kit procedure involves:

- Sample enrichment
- Sample preparation

For sample preparation from enriched food samples, Applied Biosystems recommends a 750-µL sample volume.

For the detection of most food-borne pathogens, use the "General sample preparation protocol" on page 8 with either the PrepSEQ™ Rapid Spin Sample Preparation Kit (PN 4407760) or PrepSEQ™ Rapid Spin Sample Preparation Kit – Extra Clean (PN 4413269).

For the detection of difficult-to-lyse bacteria (for example, *Listeria* spp.), use the "Sample preparation protocol for difficult-to-lyse bacteria" on page 11 with either the PrepSEQ™ Rapid Spin Sample Preparation Kit with Proteinase K (PN 4426714) or PrepSEQ™ Rapid Spin Sample Preparation Kit – Extra Clean with Proteinase K (PN 4426715).

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**IMPORTANT!** Proteinase K is required for efficient lysis of *Listeria monocytogenes*.

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For some foods with a high lipid content, such as infant formula, soft cheese, whole milk, smoked salmon (lox), and chicken wing samples, use the PrepSEQ™ Rapid Spin Extra Clean protocol with either the PrepSEQ™ Rapid Spin Sample Preparation Kit – Extra Clean (PN 4413269) or PrepSEQ™ Rapid Spin Sample Preparation Kit – Extra Clean with Proteinase K (PN 4426715).

For information on preparation of:

- *Listeria monocytogenes* DNA from food samples, refer to the *PrepSEQ™ Rapid Spin Sample Preparation Kit Protocol: Listeria monocytogenes* (PN 4412851)
- *Salmonella* spp. DNA from food samples, refer to the *PrepSEQ™ Rapid Spin Sample Preparation Kit Protocol*: *Salmonella* spp. (PN 4412848)

## Before you begin

Before starting your sample extraction:

- If you are using the general sample preparation protocol:
  - Set the block heater temperature to 95 °C.
  - Label 1.5-mL microcentrifuge tubes.
- If you are using the sample preparation protocol for difficult-to-lyse bacteria:
  - Set one block heater temperature to 95 °C, and the other block heater temperature to 56 °C.
  - Label 1.5-mL microcentrifuge tubes.

– Prepare Proteinase K-Lysis Buffer mix: premix 5 µL of Proteinase K (20 mg/mL) with 50 µL of Lysis Buffer for each sample (use a clean appropriately-sized container for mixing). Multiply volumes by the number of samples plus 10% for overage. Mix well to disperse Proteinase K in Lysis Buffer. Store on ice until ready to use.

## Kit workflow using the general sample preparation protocol

The figure below shows a sample processing workflow based on the general sample preparation protocol. For details, see page 8.

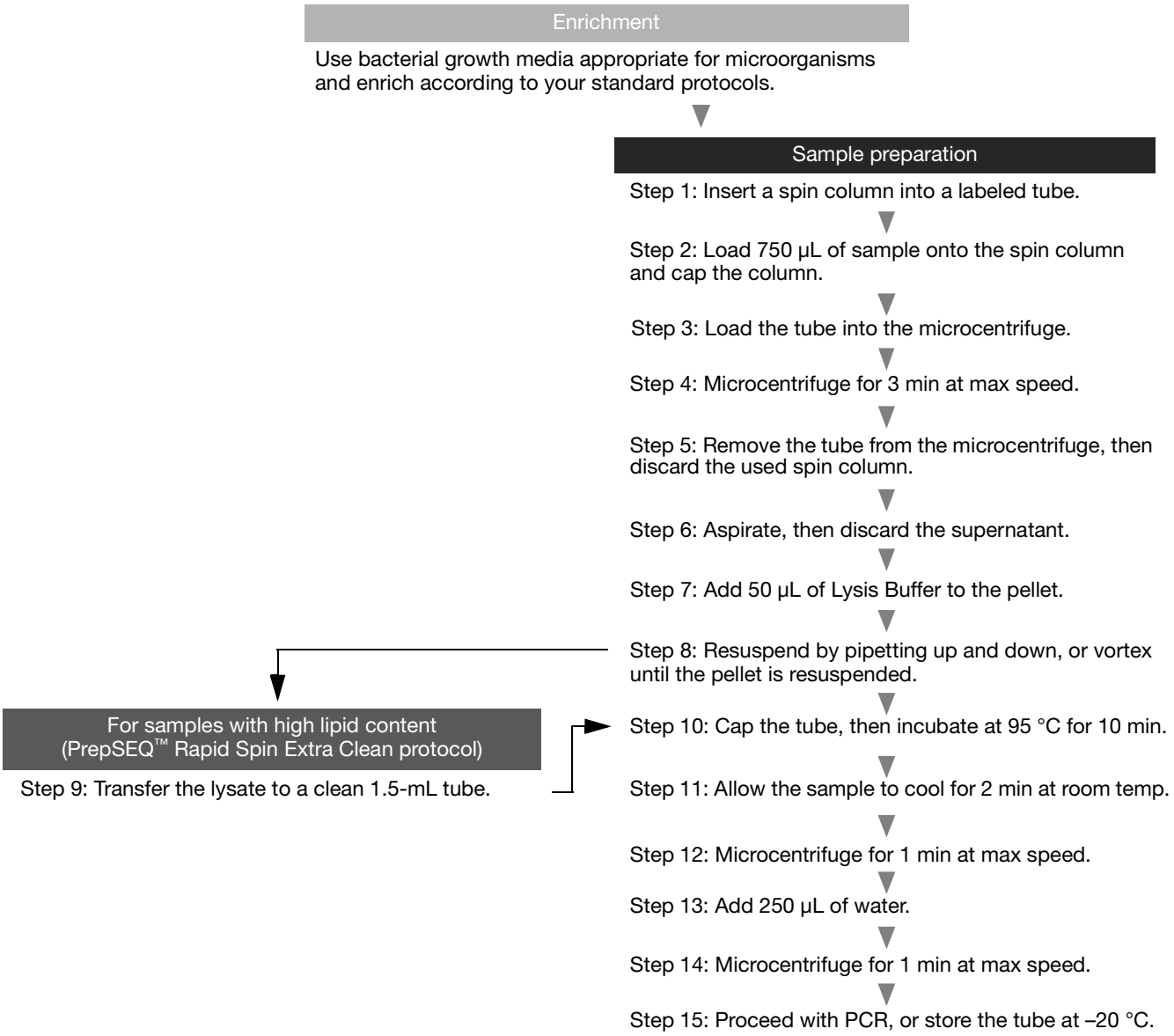



**Figure 1 Food sample preparation using the PrepSEQ™ Rapid Spin Sample Preparation Kit general protocol**

## Kit workflow using the sample preparation protocol for difficult-to-lyse bacteria

The figure below shows a sample processing workflow based on the sample preparation protocol for difficult-to-lyse bacteria, such as *Listeria* spp. For details, see page 11.

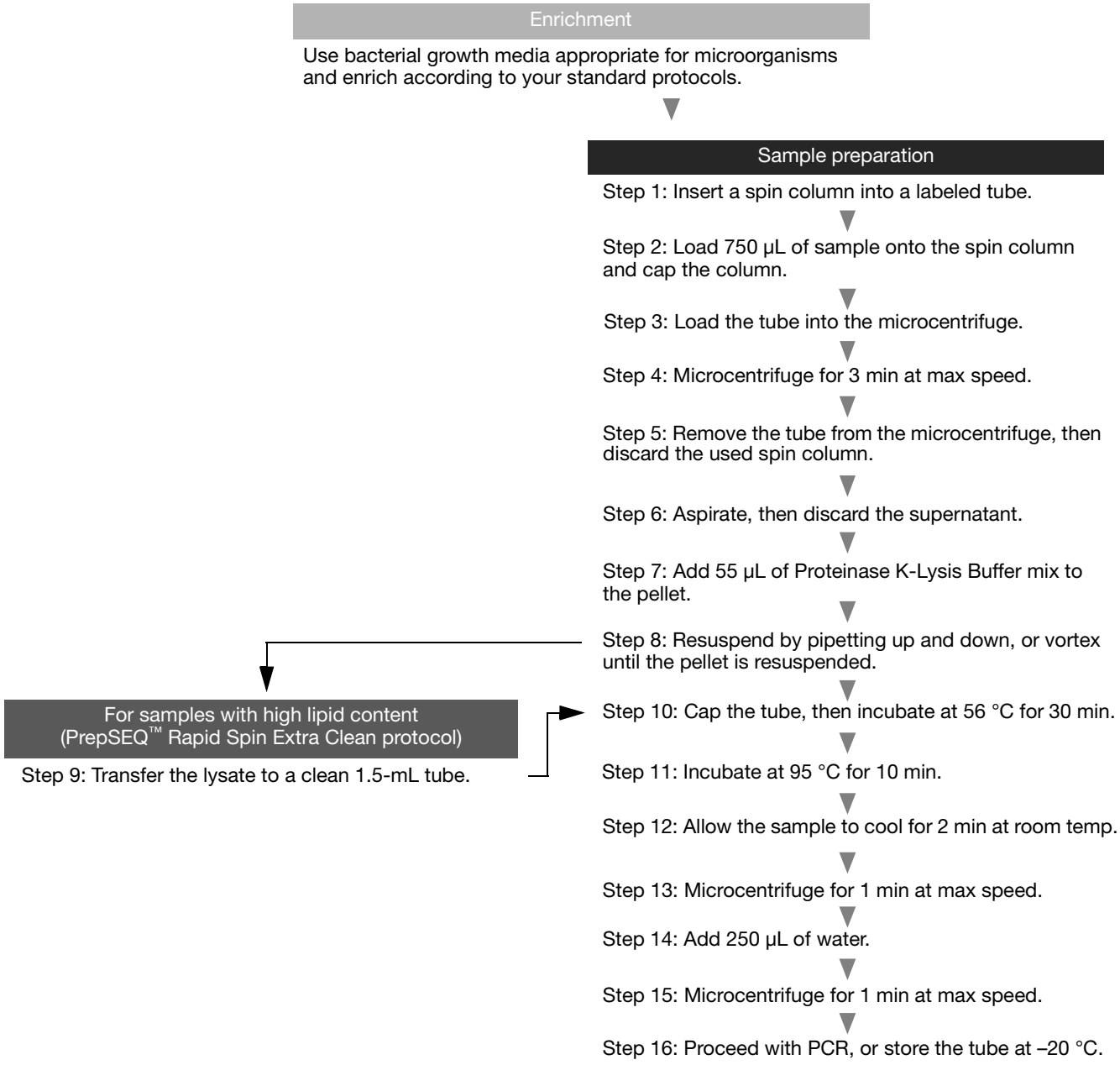


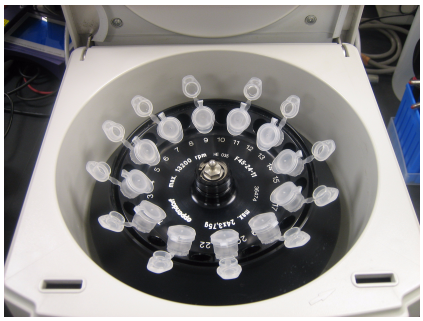

**Figure 2 Food sample preparation using the PrepSEQ™ Rapid Spin Sample Preparation Kit protocol for difficult-to-lyse bacteria**

## Generic enrichment

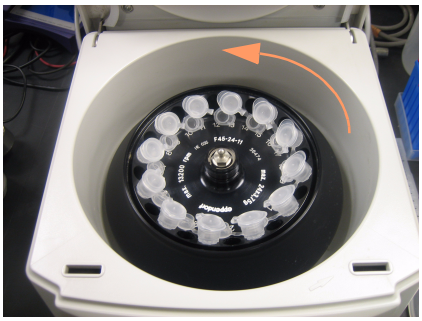
Use bacterial growth media appropriate for microorganisms and enrich according to your standard protocols.

## General sample preparation protocol

1. Insert a spin column into a labeled tube.
2. Load 750 µL of your enriched sample onto the spin column and cap the column.
3. Load the tube with its spin column into the microcentrifuge. Place the tube cap hinge toward the inside of the rotor (see figure at right below), otherwise the cap hinge interferes with installation of the rotor lid.



Incorrect position of the tube cap



Correct position of the tube cap

4. Microcentrifuge the tube for 3 minutes at maximum speed.
5. Remove the tube from the microcentrifuge and discard the used spin column.
6. Aspirate, then discard the supernatant.

---

**IMPORTANT!** Remove supernatant as completely as possible, including any excess liquid on the sides of the tube. Remove droplets by circling the inside of the tube with the pipettor and pushing into supernatant for removal by aspiration.

---

**IMPORTANT!** For samples that contain a fat layer following centrifugation, indicated as a distinct top layer, remove the fat layer as follows:

- For liquid fat layer (for example, as found in soft cheese samples), use a pipettor to remove fat from the top surface by aspirating in a circular motion. Continue to collect supernatant from the top surface until all the supernatant is removed (discard into a waste container).
- For solid fat layer (for example, as found in infant formula samples), use a pipettor to gently dislodge the fat layer and pour off the supernatant and fat layer using a quick motion (discard into a waste container). Remove the remaining supernatant using a pipettor.

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7. Add 50 µL of Lysis Buffer to the pellet.

8. Resuspend by pipetting up and down, or vortex until the pellet is well dispersed in the Lysis Buffer.

9. Rapid Spin Extra Clean protocol *only* – If the food sample has high lipid content, transfer the Lysis Buffer mixture into a clean 1.5-mL tube (avoid transferring the fat when transferring the mixture). The pellet must be well dispersed in the Lysis Buffer prior to transfer. For all other samples, proceed directly to step 10.

   **IMPORTANT!** During the transfer there will be residual fat on the sides of the original tube. Avoid contact with the fat and transfer only the Lysis Buffer containing the resuspended pellet into a clean tube.

   **IMPORTANT!** Applied Biosystems recommends this extra clean step for food samples with high lipid content, such as infant formula, soft cheese, whole milk, smoked salmon (lox), and chicken wing samples; for use with the PrepSEQ™ Rapid Spin Sample Preparation Kit – Extra Clean with Proteinase K (PN 4426715).

10. Cap the tube, then incubate at 95 °C for 10 minutes.

11. Allow the sample to cool for 2 minutes at room temperature.

12. Microcentrifuge the tube for 1 minute at maximum speed in order to bring down condensation following the 95 °C heating step.

13. Add 250 µL of water. Mix well.

    **IMPORTANT!** Use PCR-clean water (PN AM9938). Autoclaved water should not be considered PCR-clean.

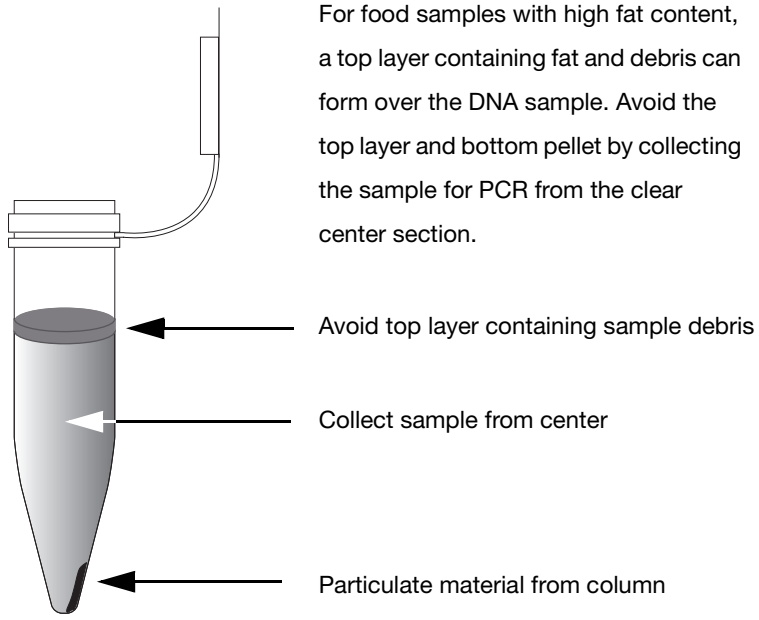
14. Microcentrifuge the tube for 1 minute at maximum speed to bring down any particulate material derived from the spin column, which can interfere with amplification. The microbial DNA is in the aqueous phase.

15. Proceed with PCR, or store the tube at –20 °C.

**IMPORTANT!** Use 30 µL of supernatant for PCR in the lyophilized assay.

**IMPORTANT!** Food samples with high fat content can form a top layer containing fat and debris over the DNA sample. When collecting your sample for PCR avoid the top layer and bottom pellet by collecting your sample from the clear center section (see figure below).

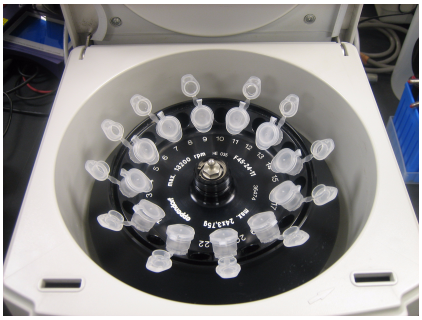
**IMPORTANT!** If PCR inhibition occurs, as indicated by no amplification for either target or IPC, then dilute sample with water. It is recommended to add 5 µL of sample and 25 µL of water to lyophilized assay to overcome inhibition. See "Troubleshooting" on page 14 for further discussion.



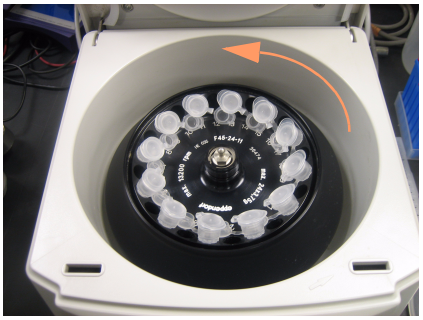
## Sample preparation protocol for difficult-to-lyse bacteria

The following sample preparation protocol is for difficult-to-lyse bacteria, such as *Listeria* spp.

1. Insert a spin column into a labeled tube.
2. Load 750 µL of your enriched sample onto the spin column and cap the column.
3. Load the tube with its spin column into the microcentrifuge. Place the tube cap hinge toward the inside of the rotor (see figure at right below), otherwise the cap hinge interferes with installation of the rotor lid.



Incorrect position of the tube cap



Correct position of the tube cap

4. Microcentrifuge the tube for 3 minutes at maximum speed.
5. Remove the tube from the microcentrifuge and discard the used spin column.
6. Aspirate, then discard the supernatant.

---

**IMPORTANT!** Remove supernatant as completely as possible, including any excess liquid on the sides of the tube. Remove droplets by circling the inside of the tube with the pipettor and pushing into supernatant for removal by aspiration.

---

**IMPORTANT!** For samples that contain a fat layer following centrifugation, indicated as a distinct top layer, remove the fat layer as follows:

- For liquid fat layer (for example, as found in soft cheese samples), use a pipettor to remove fat from the top surface by aspirating in a circular motion. Continue to collect supernatant from the top surface until all the supernatant is removed (discard into a waste container).
- For solid fat layer (for example, as found in infant formula samples), use a pipettor to gently dislodge the fat layer and pour off the supernatant and fat layer using a quick motion (discard into a waste container). Use a new pipette tip to remove the remaining supernatant.

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7. Add 55 µL of Proteinase K-Lysis Buffer mix to the pellet.

   **IMPORTANT!** To prepare the Proteinase K-Lysis Buffer mix: premix 5 µL of Proteinase K (20 mg/mL) with 50 µL of Lysis Buffer for each sample (use a clean appropriately-sized container for mixing). Multiply volumes by the number of samples plus 10% for overage. Mix well to disperse Proteinase K in Lysis Buffer.

   **IMPORTANT!** Store Proteinase K-Lysis Buffer mix on ice until ready to use.

   **IMPORTANT!** Proteinase K is required for efficient lysis of *Listeria* spp.

8. Resuspend by pipetting up and down, or vortex until the pellet is well dispersed in the Proteinase K-Lysis Buffer mix.

9. Rapid Spin Extra Clean with Proteinase K protocol *only* – If the food sample has high lipid content, transfer the mixture into a clean 1.5-mL tube (avoid transferring the fat when transferring the mixture). The pellet must be well dispersed in the Lysis Buffer prior to transfer.

   For all other samples, proceed directly to step 10 below.

   **IMPORTANT!** During the transfer there will be residual fat on the sides of the original tube. Avoid contact with the fat and transfer only the Lysis Buffer containing the resuspended pellet into a clean tube.

   **IMPORTANT!** Applied Biosystems recommends this extra clean step for food samples with high lipid content, such as infant formula, soft cheese, whole milk, smoked salmon (lox), and chicken wing samples; for use with the PrepSEQ™ Rapid Spin Sample Preparation Kit – Extra Clean with Proteinase K (PN 4426715).

10. Cap the tube, then incubate at 56 °C for 30 minutes.

11. Incubate at 95 °C for 10 minutes.

12. Allow the sample to cool for 2 minutes at room temperature.

13. Microcentrifuge the tube for 1 minute at maximum speed in order to bring down condensation following the 95 °C heating step.

14. Add 250 µL of water. Mix well.

    **IMPORTANT!** Use PCR-clean water (PN AM9938). Autoclaved water should not be considered PCR-clean.

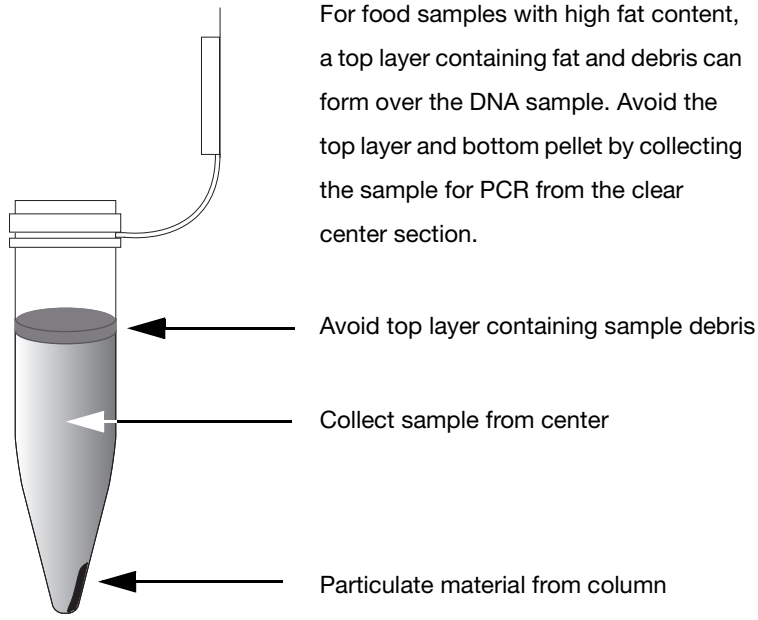
15. Microcentrifuge the tube for 1 minute at maximum speed to bring down any particulate material derived from the spin column, which can interfere with amplification. The microbial DNA is in the aqueous phase.

16. Proceed with PCR, or store the tube at –20 °C.

**IMPORTANT!** Use 30 µL of supernatant for PCR in the lyophilized assay.

**IMPORTANT!** Food samples with high fat content can form a top layer containing fat and debris over the DNA sample. When collecting your sample for PCR avoid the top layer and bottom pellet by collecting your sample from the clear center section (see figure below).

**IMPORTANT!** If PCR inhibition occurs, as indicated by no amplification for either target or IPC, then dilute sample with water. It is recommended to add 5 µL of sample and 25 µL of water to lyophilized assay to overcome inhibition. See "Troubleshooting" on page 14 for further discussion.



# Troubleshooting

| Observation | Possible cause | Action |
|---|---|---|
| PCR is inhibited, indicated by non-detection of IPC reaction | Removal of the supernatant before adding Lysis Buffer was not sufficient. | Add 5 µL or 10 µL of sample to the PCR reaction and bring the final volume to 30 µL with water. |
| | Filtrate from the spin column is in the sample. | Centrifuge the sample to separate the filter particulates before adding sample to the PCR reaction. |
| | The sample contained excess fat that was not removed during aspiration of the supernatant. | Apply PrepSEQ™ Rapid Spin Extra Clean protocol. |
| | Matrix is associated with PCR inhibitory components. | Pre-wash the bacterial pellet before column clarification:<br>1 – Transfer 750 µL of sample to a clean microcentrifuge tube.<br>2 – Centrifuge at 16000 × g for 3 min.<br>3 – Discard supernatant.<br>4 – Resuspend pellet in 650 µL of sterile distilled water.<br>5 – Load column. |
| The bacterial pellet separates from the tube making pellet hard to avoid during aspiration | Sample was left unattended before the supernatant was aspirated. | Remove supernatant immediately following centrifugation. |
| Positive signal in negative control | Target organism is causing contamination. | PCR is a very sensitive test capable of amplification from a single copy of DNA. PCR must be set up in a PCR-clean environment that is separate from PCR amplification and analysis. |

Appendix A

# Safety

This appendix covers:



# Chemical safety

## Chemical hazard warning

**WARNING! CHEMICAL HAZARD.** Before handling any chemicals, refer to the Material Safety Data Sheet (MSDS) provided by the manufacturer, and observe all relevant precautions.

**WARNING! CHEMICAL HAZARD.** All chemicals in the instrument, including liquid in the lines, are potentially hazardous. Always determine what chemicals have been used in the instrument before changing reagents or instrument components. Wear appropriate eyewear, protective clothing, and gloves when working on the instrument.

**WARNING! CHEMICAL HAZARD.** Four-liter reagent and waste bottles can crack and leak. Each 4-liter bottle should be secured in a low-density polyethylene safety container with the cover fastened and the handles locked in the upright position. Wear appropriate eyewear, clothing, and gloves when handling reagent and waste bottles.

**WARNING! CHEMICAL STORAGE HAZARD.** Never collect or store waste in a glass container because of the risk of breaking or shattering. Reagent and waste bottles can crack and leak. Each waste bottle should be secured in a low-density polyethylene safety container with the cover fastened and the handles locked in the upright position. Wear appropriate eyewear, clothing, and gloves when handling reagent and waste bottles.

## Chemical safety guidelines

To minimize the hazards of chemicals:

- Read and understand the Material Safety Data Sheets (MSDSs) provided by the chemical manufacturer before you store, handle, or work with any chemicals or hazardous materials. (See "About MSDSs" on page 17.)
- Minimize contact with chemicals. Wear appropriate personal protective equipment when handling chemicals (for example, safety glasses, gloves, or protective clothing). For additional safety guidelines, consult the MSDS.
- Minimize the inhalation of chemicals. Do not leave chemical containers open. Use only with adequate ventilation (for example, fume hood). For additional safety guidelines, consult the MSDS.
- Check regularly for chemical leaks or spills. If a leak or spill occurs, follow the manufacturer's cleanup procedures as recommended in the MSDS.
- Comply with all local, state/provincial, or national laws and regulations related to chemical storage, handling, and disposal.

### About MSDSs

Chemical manufacturers supply current Material Safety Data Sheets (MSDSs) with shipments of hazardous chemicals to new customers. They also provide MSDSs with the first shipment of a hazardous chemical to a customer after an MSDS has been updated. MSDSs provide the safety information you need to store, handle, transport, and dispose of the chemicals safely.

Each time you receive a new MSDS packaged with a hazardous chemical, be sure to replace the appropriate MSDS in your files.

### Obtaining MSDSs

The MSDS for any chemical supplied by Applied Biosystems is available to you free 24 hours a day. To obtain MSDSs:

1. Go to **www.appliedbiosystems.com**, click **Support**, then select **MSDS**.
2. In the Keyword Search field, enter the chemical name, product name, MSDS part number, or other information that appears in the MSDS of interest. Select the language of your choice, then click **Search**.
3. Find the document of interest, right-click the document title, then select any of the following:
   - **Open** – To view the document
   - **Print Target** – To print the document
   - **Save Target As** – To download a PDF version of the document to a destination that you select

**Note:** For the MSDSs of chemicals not distributed by Applied Biosystems, contact the chemical manufacturer.

## Chemical waste safety

### Chemical waste hazards

**CAUTION! HAZARDOUS WASTE.** Refer to Material Safety Data Sheets (MSDSs) and local regulations for handling and disposal.

**WARNING! CHEMICAL WASTE HAZARD.** Wastes produced by Applied Biosystems instruments are potentially hazardous and can cause injury, illness, or death.

**WARNING! CHEMICAL STORAGE HAZARD.** Never collect or store waste in a glass container because of the risk of breaking or shattering. Reagent and waste bottles can crack and leak. Each waste bottle should be secured in a low-density polyethylene safety container with the cover fastened and the handles locked in the upright position. Wear appropriate eyewear, clothing, and gloves when handling reagent and waste bottles.

## Chemical waste safety guidelines

To minimize the hazards of chemical waste:

- Read and understand the Material Safety Data Sheets (MSDSs) provided by the manufacturers of the chemicals in the waste container before you store, handle, or dispose of chemical waste.
- Provide primary and secondary waste containers. (A primary waste container holds the immediate waste. A secondary container contains spills or leaks from the primary container. Both containers must be compatible with the waste material and meet federal, state, and local requirements for container storage.)
- Minimize contact with chemicals. Wear appropriate personal protective equipment when handling chemicals (for example, safety glasses, gloves, or protective clothing). For additional safety guidelines, consult the MSDS.
- Minimize the inhalation of chemicals. Do not leave chemical containers open. Use only with adequate ventilation (for example, fume hood). For additional safety guidelines, consult the MSDS.
- Handle chemical wastes in a fume hood.
- After emptying a waste container, seal it with the cap provided.
- Dispose of the contents of the waste tray and waste bottle in accordance with good laboratory practices and local, state/provincial, or national environmental and health regulations.

## Waste disposal

If potentially hazardous waste is generated when you operate the instrument, you must:

- Characterize (by analysis if necessary) the waste generated by the particular applications, reagents, and substrates used in your laboratory.
- Ensure the health and safety of all personnel in your laboratory.
- Ensure that the instrument waste is stored, transferred, transported, and disposed of according to all local, state/provincial, and/or national regulations.

  **IMPORTANT!** Radioactive or biohazardous materials may require special handling, and disposal limitations may apply.

# Biological hazard safety

### General biohazard

**WARNING! BIOHAZARD.** Biological samples such as tissues, body fluids, infectious agents, and blood of humans and other animals have the potential to transmit infectious diseases. Follow all applicable local, state/provincial, and/or national regulations. Wear appropriate protective equipment, which includes but is not limited to: protective eyewear, face shield, clothing/lab coat, and gloves. All work should be conducted in properly equipped facilities using the appropriate safety equipment (for example, physical containment devices). Individuals should be trained according to applicable regulatory and company/institution requirements before working with potentially infectious materials. Read and follow the applicable guidelines and/or regulatory requirements in the following:

- U.S. Department of Health and Human Services guidelines published in *Biosafety in Microbiological and Biomedical Laboratories* (stock no. 017-040-00547-4; **bmbl.od.nih.gov**)
- Occupational Safety and Health Standards, Bloodborne Pathogens (29 CFR§1910.1030; **www.access.gpo.gov/nara/cfr/waisidx_01/29cfr1910a_01.html**)
- Your company's/institution's Biosafety Program protocols for working with/handling potentially infectious materials.

Additional information about biohazard guidelines is available at: **www.cdc.gov**

# Chemical alerts

### General alerts for all chemicals

Avoid contact with skin, eyes, and/or clothing. Read the MSDS, and follow the handling instructions. Wear appropriate protective eyewear, clothing, and gloves.

# Related documentation

For additional documentation, see "How to obtain support" on page vi.

For information on new assays and updated product documentation, go to **http://info.appliedbiosystems.com/pathogenkits**

| Document title | PN |
|---|---|
| *PrepSEQ™ Rapid Spin Sample Preparation Kit Quick Reference Card* | 4412846 |
| *PrepSEQ™ Rapid Spin Sample Preparation Kit Protocol: Salmonella spp.* | 4412848 |
| *PrepSEQ™ Rapid Spin Sample Preparation Kit Quick Reference Card: Salmonella spp.* | 4412849 |
| *PrepSEQ™ Rapid Spin Sample Preparation Kit Protocol: Listeria monocytogenes* | 4412851 |
| *PrepSEQ™ Rapid Spin Sample Preparation Kit Quick Reference Card: Listeria monocytogenes* | 4412852 |
| *PrepSEQ™ Nucleic Acid Extraction Kit Quick Reference Card* | 4406303 |
| *PrepSEQ™ Nucleic Acid Extraction Kit Protocol: Salmonella spp.* | 4405968 |
| *PrepSEQ™ Nucleic Acid Extraction Kit Quick Reference Card: Salmonella spp.* | 4405967 |
| *PrepSEQ™ Nucleic Acid Extraction Kit Protocol: Listeria monocytogenes* | 4405966 |
| *PrepSEQ™ Nucleic Acid Extraction Kit Quick Reference Card: Listeria monocytogenes* | 4405965 |
| *PrepSEQ™ Mycoplasma Nucleic Acid Extraction Kit Protocol* | 4401253 |
| *PrepSEQ™ Mycoplasma Nucleic Acid Extraction Kit Quick Reference Card* | 4406304 |
| *MicroSEQ® Listeria monocytogenes Detection Kit Protocol* | 4405962 |
| *MicroSEQ® Listeria monocytogenes Detection Kit Quick Reference Card* | 4405961 |
| *MicroSEQ® Salmonella spp. Detection Kit Protocol* | 4405964 |
| *MicroSEQ® Salmonella spp. Detection Kit Quick Reference Card* | 4405963 |
| *MycoSEQ™ Mycoplasma Detection Kits Protocol: MycoSEQ™ Mycoplasma Real-Time PCR Detection Kit, MycoSEQ™ Myco Scan Mycoplasma Detection Kit* | 4393111 |
| *MycoSEQ™ Mycoplasma Detection Kits Quick Reference Card: MycoSEQ™ Mycoplasma Real-Time PCR Detection Kit, MycoSEQ™ Myco Scan Mycoplasma Detection Kit* | 4393471 |

Portable document format (PDF) versions of this guide and the documents listed above are available at **www.appliedbiosystems.com**

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**Note:** To open the documentation available from the Applied Biosystems web site, use the Adobe® Acrobat® Reader® software available at **www.adobe.com**

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**Headquarters**
850 Lincoln Centre Drive | Foster City, CA 94404 USA
Phone 650.638.5800 | Toll Free 800.345.5224
www.appliedbiosystems.com

**International Sales**
For our office locations please call the division headquarters or refer to our Web site at
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