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**foodproof<sup>®</sup> Magnetic Preparation Kit I** Order No. S 400 11 L

## Quick Reference Procedure for foodproof<sup>®</sup> RoboPrep Fusion System

Version 1, March 2018

The **foodproof** Magnetic Preparation Kit I in combination with the **foodproof** RoboPrep Fusion system provides fully automated purification of bacterial DNA from up to 200 µl enrichment culture of food samples (raw material and processed food). The DNA isolation process is based on magnetic bead technology, which relies on the interaction of nucleic acids with coated magnetic particles under suitable buffer conditions. The kit provides high-quality DNA, which is suitable for direct use in PCR applications.

### A. Preparation of Kit Working Solutions

In addition to the ready-to-use solutions supplied with the kit, the following preparation of working solutions is required:

Bottle/Tube	Content	Preparation of working solution
No. 2 (green cap)	Binding Buffer	Add 80 ml absolute isopropanol to one bottle of Binding Buffer
No. 3 (blue cap)	Wash Buffer I	Add 154 ml absolute isopropanol to one bottle of Wash Buffer I
No. 4 (blue cap)	Wash Buffer II	Add 164 ml absolute isopropanol to one bottle of Wash Buffer II

Check the box on the label of the bottle after isopropanol has been added. Add the date for verifiability.

All buffers and kit components of the **foodproof** Magnetic Preparation Kit I should be stored at 15 °C to 25 °C and are stable through the expiration date printed on the label.

### B. Additional Equipment and Reagents

For protein-rich food samples (e.g. egg, pork, chicken, salmon, cheese), addition of Reagent P (Order No. A 500 12) to the Lysis Buffer is necessary.

All necessary plastic consumables are available through BIOTECON Diagnostics.

- 175µl Conductive Filter Tips (Order No. D 252 01)
- 900µl Conductive Filter Tips (Order No. D 252 02)
- 1 Well Liquid Handling Reservoir (Order No. D 252 03)
- 4 Well Liquid Handling Reservoir (Order No. D 252 04)
- Universal Lid for all 96-well Plates (Order No. D 252 05)
- 10 ml Sample Tubes, sterile (Order No. D 252 06)
- KingFisher 96 tip comb for DWH (Order No. Z 100 53)
- KingFisher 96 Deepwell Plate, sterile (Order No. Z 100 54)
- KingFisher 96 Plate, 200 µl (Order No. Z 100 55)
- Sealing foil (Order No. Z 100 61)
- Disposable gloves
- ddH<sub>2</sub>O
- Vortexer
- Absolute isopropanol (96-98 %)

### C. Running the Protocol on the foodproof RoboPrep Fusion

#### Caution

Always wear gloves during the procedure, and follow safety precautions to minimize contact when handling. Follow all universal safety precautions governing work with biohazardous materials (e.g., wear lab coats at all times). Also, properly dispose of all contaminated materials, decontaminate work surfaces, and use a biosafety cabinet whenever aerosols might be generated.

JANUS Application Assistant guides you through the entire process of selecting and running the protocol. To open JANUS Application Assistant click on this icon located on your Windows desktop:



## Daily Preventative Maintenance

Flushing the Varispan™ system of the **foodproof** RoboPrep Fusion with degassed distilled water helps to keep the system free of air bubbles, crystals, precipitates, and biological growth that can accumulate within the tubing, valves, and syringes. If allowed to accumulate in the liquid path, these items decrease the accuracy and precision of the instrument. To prevent this problem, **flush the system at the start of the working day.**

### To Flush the System:

1. Fill the system liquid container with degassed, distilled water.
2. Clicking on the Select button and choosing the protocol "FlushSysLiq" under the Select Protocol section "Cleaning" of the window to start the flush process.
3. Set both the Flush and Wash volumes to 40,000 µl, when prompted.
4. Clicking on the Run button and the Start button to start the process.
5. While the protocol is running, the relative status of the protocol is constantly updated to the screen by the Progress panel.

### Executing the foodproof MPK I Protocol

1. Clicking on the Select button and choosing the protocol "**foodproof**\_MPK\_I\_vxx" under the Select Protocol section "NA Extraction" of the window.
2. Respond to the questions that are associated with the selected protocol. The questions are listed under the Answer Questions section of the window. You must respond to these questions before you move on to the next step. The answers that you provide help to govern the successful execution of the protocol:
3. Proceed to Step 2: Click on the Next Step button or the Gather button:
4. Inspect the checklist (under the section Gather the Following Labware and Reagents) and collect the labware that you will need to run the protocol. Click on each labware item that you collect. All labware that is listed is required. For your convenience the location of a lab item or reagent may be listed. This should shorten the time it takes to find the item.
5. Proceed to Step 3. Click on the Next Step button or the Place button:
6. Next you need to populate the instrument deck with the labware items that you collected in Step 4. The collected labware and reagents are listed under the Place the Following Labware and Reagents section of the window. The Deck Position of each item is also listed. Click on each labware item that you place on the deck:
7. When you select an item in the top left section of the window (Place the Following Labware and Reagents) the item's placement instructions are displayed under the Instructions section of the window:
8. Pipet 5 – 10 ml of the food enrichment culture in to a 10 ml sample tube and place it into the sample tube rack.
9. Run the protocol and monitor its progress as the protocol executes.
10. Reset tip boxes or start the tips remaining from a previous run
11. Additionally, the list of labware can be verified
12. Start PCR Setup for LyoKits after decapping the PCR tubes
13. The following window indicates that the protocol is finished
14. Clean up the instrument after the successful execution of the protocol.

For further information please refer to: [www.bc-diagnostics.com](http://www.bc-diagnostics.com).

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