

The PowerFood™ Microbial DNA Isolation Kit from MoBio combines the robust and rapid lysis method of bead beating with their patented Inhibitor Removal Technology® (IRT) for isolation of pathogen DNA from cultured food samples. Contact **Life Technologies (India) Pvt. Ltd.** to purchase Power Food testing kit at www.lifetechindia.com or call at +91-11-42208000 or +91-9810521400.

APPLICATIONS

- Food samples examined using the PowerFood™ Microbial DNA Isolation Kit include meats, cheeses and dairy products, chocolate, fruits, vegetables, and juices.
- Food pathogen DNA from the following organisms was shown to be inhibitor free using qPCR:
 - *Clostridium difficile*, *Clostridium perfringens*, *Enterococcus faecalis*,
 - *Escherichia coli*, *Lactobacillus* sp., *Listeria monocytogenes*,
 - *Salmonella enterica*.
- To do this, the food must first be cultured (*in the US these guidelines are mandated by the FDA and this is how this kit was developed*)
- The cultures are then plated on selective growth media to identify harmful bacteria
- Labs that test food for bacterial contamination must identify only live bacteria that can cause infection
- This process takes 2-3 days
- By extracting DNA and identifying bacterial strains via PCR after the first culture, 1-2 days can be saved from this process

FEATURES/BENEFITS

=> Process more sample types

Feature- The PowerFood Microbial DNA Isolation Kit is a complete system. No Proteinase K required.

Benefit- This kit can isolate pathogen (gram – and gram +) DNA from a wider variety of cultured food types than any other single kit on the market. No additional reagents or enzymes are required with this kit.

=>Fast, easy protocol

Feature- Streamlined protocol has less steps and is easy to follow.

Benefit- The protocol has less steps so it makes it easier and faster to process more samples and it also reduces the chances for mistakes or loss of DNA.

=>Includes IRT

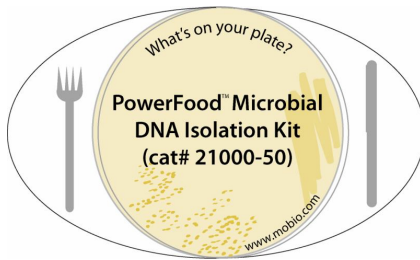
Feature- Inhibitor Removal Technology reagents included

Benefit- Inhibitors from food particles and debris are removed from the sample during purification which results in high quality DNA and increased sensitivity in qPCR.

India Contact:

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QUESTION/ANSWERS

- **Does the PowerFood™ Microbial DNA Isolation Kit come complete?**
- **Yes , No extra kits or reagents for lysis of gram-positive bacteria are needed
No extra kits or reagents for PCR inhibitor removal are needed,
No ethanol needs to be added to the buffers**
- **What bacteria have you tested?**
 - Gram – (*E. coli*, *Salmonella*)
 - Gram + (*Bacillus*, *Clostridium*, *Enterococcus*, *Lactobacillus*, *Listeria*)
- **What foods have you cultured?**
 - Dairy (cheese, cream, yogurt)
 - Fruits (strawberries, grapes)
 - Vegetables (ready-to-eat mixed salad)
 - Meat (raw ground beef)
 - Juices (orange, carrot)
- **Can the PowerFood™ Microbial DNA Isolation Kit be used for direct sampling of food?**
 - This kit has been validated for use with cultured food homogenates. However, up to 250 mg of a food sample can be used for isolation of microbial DNA.
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- **What foods have you sampled directly?**
 - Chocolate
 - Dairy (milk, cream, cheese)
 - Vegetables (asparagus, lettuce)
 - Juices
- **How do you homogenize food samples prior to culturing?**
 - A laboratory blender such as the BagMixer® 400 VW (cat. # 23112) has been validated for homogenization of food.
 - For specific sample processing guidelines refer to FDA guidelines (Bacteriological Analytical Manual, Edition 8, Revision A /1998)

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