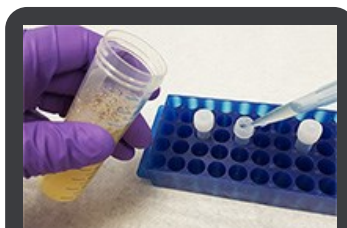


Direct DNA Extraction Kit (Bacteria)

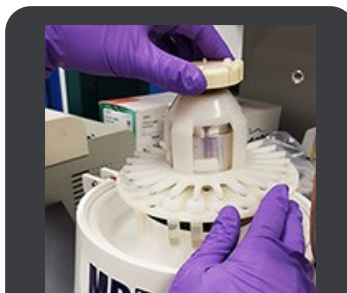
Norgen's Direct DNA Extraction Kit (Bacteria) contains a Direct Pathogen Extraction Buffer (Buffer DL) and pre-filled bead tubes for the extraction of DNA from enriched Gram negative and positive bacteria from food and culture samples. The kit first allows for the extraction of DNA directly from bacteria using mechanical homogenization with Buffer DL. The cell debris is then removed by a short centrifugation and the clean supernatant is ready for use in PCR reactions. Buffer DL is designed to stabilize extracted DNA and inactivate PCR inhibitors to provide a rapid and economic solution for high throughput pathogen detection, particularly for Gram-positive bacteria such as *Listeria* spp. Norgen's Direct DNA Extraction Kit (Bacteria) is compatible with sensitive detection applications including end-point PCR and real-time PCR.



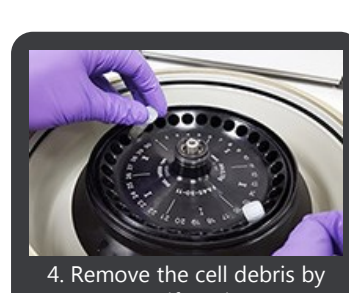
1. Take 1 mL from enriched culture



2. Pellet the cells and resuspend with 400 μ L of Buffer DL



3. Homogenize in a bead tube



4. Remove the cell debris by centrifugation



5. The clean supernatant can be used directly in PCR

Direct DNA Extraction Kit (Bacteria) Benefits

- Rapid procedure
- Easy and convenient protocol
- Reproducible
- Applicable for high throughput detection platforms

Direct DNA Extraction Kit (Bacteria)

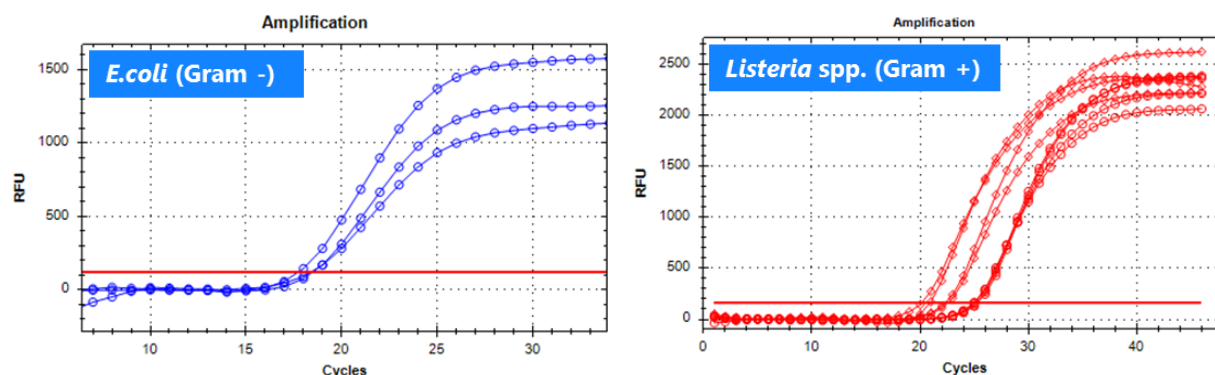


Figure 1. Detection of Gram negative (*E.coli*) and Gram positive (*Listeria* spp.) bacteria using Norgen's Direct DNA Extraction Kit (Bacteria) in real-time PCR system. Two microlitres of the clean supernatant was directly added to a PCR reaction (total 20 μ L) to detect 16s rRNA target or *Listeria* spp. specific gene for *E.coli* and *Listeria* spp. respectively. Targets were successfully amplified, indicating the high quality of the inhibitor-free DNA that was extracted using Norgen's Direct DNA Extraction Kit (Bacteria). This kit is applicable for rapid and sensitive microorganism detection for food quality monitoring and other high throughput analysis applications.

Kit Contents:

1. Direct Pathogen Extraction Buffer (Buffer DL)
2. Bead Tubes
3. Product Insert

Storage Conditions

All kit components should be stored at room temperature (15–25°C).

Customer-Supplied Reagents and Equipment

- Benchtop microcentrifuge (>20,000 x g)
- 1.5 mL or 2 mL Nuclease-free microcentrifuge tubes
- Flat bed vortex or bead beater equipment (e.g. MP Biomedicals' FastPrep®-24 Instrument)
- Stomacher, blender or equivalent
- Incubators capable of maintaining 30°C, 36°C or variable temperature setting

Shipping Conditions

The Direct DNA Extraction Kit (Bacteria) is shipped at room temperature.

Cat #	Description	Quantity
61500	Direct DNA Extraction Kit (Bacteria)	50 preps