Listeria monocytogenes is a food-borne pathogen that can grow slowly at refrigerated temperatures. The bacteria are associated with a variety of raw meats and vegetables, as well as ready-to-eat foods that get contaminated during processing. This disease can cause serious illness in persons with heightened susceptibility, especially pregnant women and immunocompromised persons. Traditional culture methods can take four days or more to get results, and many rapid methods require a two-stage, 48-hour enrichment. With this BAX® system assay, however, accurate and reliable results are available the next day with a single step, 24-hour enrichment.

**Benefits**

- **Speed** – Single-stage enrichment complete in only 24 hours
- **Accuracy** – Automated DNA-based analysis
- **Exceptional sensitivity** – Detects $10^4$ cfu/mL
- **Ease of use** – Tableted reagents reduce operator error
- **Closed-cap system** avoids amplicon contamination in the lab
- **LIMS-compatible** electronic data for easy storage, sharing and retrieval
- **Designed for efficient workflow and reliable results**

**Features**

- PCR processing completes in 3.5 hours
- Can be run in mixed batches with other BAX® system standard assays
- Validated on meat, seafood, dairy, vegetable and environmental samples
- 100% inclusivity/exclusivity
- Next-day results with 24 LEB media (Oxoid CM1107/SR0243E)

**Approvals**

- AFNOR validated to ISO 16140; Certificate number QUA 18/05 – 07/08
Sample preparation

**Enrichment:** Homogenise samples (1:10) in prepared 24 LEB (Oxoid CM1107/SR0243E) using filterless stomacher bags. Incubate 24 hours at 37°C.

**BAX® system protocol**

**10:00** Create rack file and warm up cycler.

**10:05** Dilute Lysing agent 1 with 1.8 mL sterile water, and combine in 4:1 ratios with Lysing agent 2

**10:10** Transfer 50 µL of combined agents to cluster tubes, then add 0.5 mL enriched sample and incubate for 30 minutes at 37°C.

**10:50** Mix protease with lysis buffer and transfer 200 µL of lysis reagent to new cluster tubes.

**10:55** Transfer 5 µL of lysate to cluster tubes.

**11:00** Heat cluster tubes for 30 minutes at 55°C, then 10 minutes at 95°C. Cool for 5 minutes in lysis cooling block.

**11:45** Hydrate PCR tablets in second cooling block with 30 µL of chilled lysate.

**11:50** Place sealed PCR tubes in cycler and run program.

**3:20** Review results.

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