PRODUCT DESCRIPTION

DUPONT™ BAX® SYSTEM

Real-Time PCR Assay for *Campylobacter jejuni/coli/lari*

Campylobacter is a worldwide public health concern and the leading cause of enteric illness in the U.S. Ingesting even low doses (less than 500 cells) can cause Campylobacteriosis, with clinical complications that include arthritis and Guillain-Barré syndrome.

Although *C. jejuni* is responsible for 90% of *Campylobacter* infections, *C. coli* and *C. lari* are also harmful to humans. These bacteria are carried in the intestinal tracts of animals, especially birds. The foodborne pathogen has been found in unpasteurized milk, meat, poultry, shellfish, fruits and vegetables. Current screening procedures are culture-based, which require a laborious plating method and at least five days to result.

BAX® System Real-Time PCR Assay ***Campylobacter jejuni/coli/lari***
Part # D12683449
96 tests per kit
PCR tubes with tablets, optical caps, protease, lysis buffer
Store at 2-8°C
Stable to expiration date on label

Benefits of the BAX® System Real-Time PCR Assay

- Speed – Same-day results for highly contaminated samples without enrichment, next-day results for enriched samples
- Accuracy – Detects and quantifies all three species in the same sample
- Exceptional sensitivity – Reliably 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

Features

- Less than 90 minutes real-time processing
- 24-48 hours enrichment
- If any species is present, sample is positive; if none is present, sample is negative
- Displays separate quantitative values as cfu/mL for each species in the sample – no interpretation required
- Validated on enriched samples of spiked turkey breast and naturally contaminated chicken carcass rinses
- Sensitivity equivalent to ISO 10272-1:2006(E) culture-based method
- Specificity ≥99%
- Excellent inclusivity/exclusivity

Certifications

PERFORMANCE TESTED AOAC RESEARCH INSTITUTE LICENSE NUMBER 040702

AOAC Research Institute
Performance Tested Method℠
#040702 – Validated on processed turkey and poultry carcass rinses

NordVal #39

Validations and Approvals

- **People's Republic of China AQSIQ**
- **Russia Rospotrebnadzor**

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Sample Preparation

Without enrichment: Rinse poultry carcass in 400 mL buffered peptone water.

With enrichment:

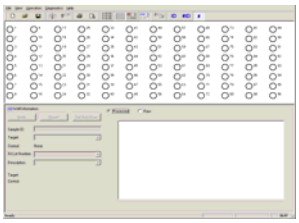
Processed poultry product: Prepare 1:10 dilutions of sample in single-strength Bolton broth with supplement (no blood).

Carcass rinses: Rinse poultry carcass in 400 mL of buffered peptone water, and add 30 mL rinse to 30 mL of double-strength Bolton broth with supplement (no blood).

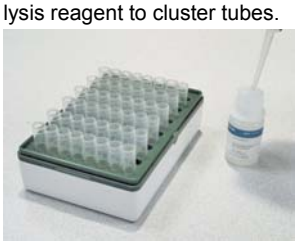
Incubate all samples under microaerobic conditions at 42°C for at least 24 hours. Enrichment can be extended to 48 hours if needed.

BAX® System Protocol

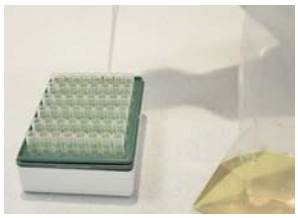
8:00 Create rack file and warm up cycler.



8:05 Mix protease with lysis buffer and transfer 200 µL of lysis reagent to cluster tubes.

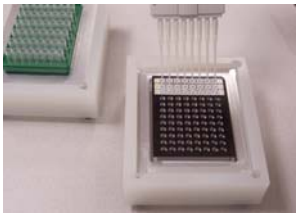


8:10 Transfer 5-µL samples to cluster tubes.

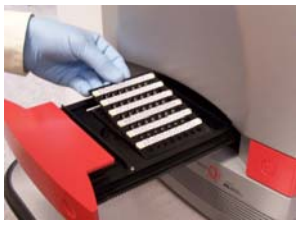


8:20 Heat cluster tubes for 20 minutes at 37°C, then 10 minutes at 95°C.

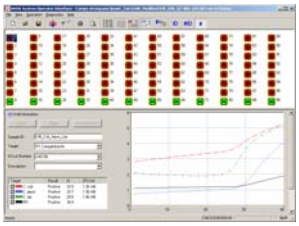
8:50 Cool cluster tubes for 5 minutes in cooling block, then transfer 30 uL to PCR tubes in cooling block.



9:00 Place sealed PCR tubes in cycler and run program.



10:30 Review results.



Target	Result	Ct	CFU/ml
C. coli	Positive	32.8	1.3E+06
C. jejuni	Positive	33.7	1.3E+06
C. lari	Positive	29.8	1.4E+06
IPC	Positive	34.4	

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