



Laboratory Guidebook Notice of Change

Chapter new, **revised**, or archived: MLG 41 Appendix 2.02

Title: FSIS Laboratory Specific Flow Chart for *Campylobacter jejuni/coli/lari*
Enrichment Analysis

Effective Date: 06/07/21

Description and purpose of change(s):

This flow chart was issued in association with MLG 41. The dilution ratio was corrected to 1:6. The confirmation section was revised to reflect instructions for a positive microscopic result and a negative latex agglutination result. The use of a Whirl-Pak[®] bag was added. Clarity of information was provided throughout the flowchart.

FSIS Laboratory Specific Flow Chart for *Campylobacter jejuni/coli/lari* Enrichment Analysis

Day 1

Poultry Rinse or Sponge or Raw Poultry Product Samples + Enrichment Broth
(Sample receipt temperature of 0 – 15°C is required)

Transfer 30 mL of poultry rinse + 30 mL of 2X BF-BEB¹ to a vented culture flask or Whirl-Pak[®] bag and mix well.

Transfer 30 mL of raw poultry product diluted 1:6 in BPW² + 30 mL of 2X BF-BEB to a vented culture flask or Whirl-Pak[®] bag and mix well.

Add 25 mL of 2X BF-BEB to carcass sponge sample containing 25 mL of BPW² and mix well.

Incubate for 48 ± 2hrs @ 42 ± 1 °C in a sealed container applying appropriate microaerobic conditions.

PRIMARY ENRICHMENT

This chart represents the best case scenario. Analysis may take longer due to normal analytical circumstance such as re-streaking isolates for purity.

Day 3

Perform *Campylobacter* screen using 3M™ Molecular Detection System

(+)

(-)
Report as Negative

Streak sample to sufficiently dried Campy-Cefex plate for isolation.
Place plate into a sealed container applying the appropriate microaerobic conditions.
Incubate for 48 ± 2hrs @ 42 ± 1°C.

SELECTIVE ISOLATION MEDIA

Day 5

Pick up to 3 isolated colonies representing each *Campylobacter* morphology type.

Conduct **microscopic** examination for corkscrew morphology and darting motility of the culture.
Perform **latex agglutination**.

READING RESULTS

Microscopic (-)
Latex agglutination (-)

Microscopic (+)
Latex agglutination (+)

Microscopic (+)
Latex agglutination (-)

CONFIRMATORY ANALYSIS

CONFIRMED NEGATIVE

CONFIRMED POSITIVE

ATYPICAL OR INCONCLUSIVE

CONFIRMED POSITIVE ISOLATES

Whole Genome Sequencing (WGS) is performed on confirmed positive and atypical isolates at each FSIS FSL³ and results are reported.

¹ 2X BF-BEB = Double strength blood free Bolton enrichment broth and supplements
² BPW = Buffered Peptone Water

³ FSIS FSL = Food Safety and Inspection Service Field Service Laboratories