



MTS™ Technical Sheet *Campylobacter* spp.

Specimen

Stools, blood, tissues.

| | |
|-----------------------|---|
| Medium | Mueller Hinton II Agar (Sheep blood 5%), ref. 10131 or Mueller Hinton Fastidious Agar (Horse blood 5% + 20 mg/L β-NAD), ref. 10132. Plates should be dried prior to inoculation at 20-25°C overnight, or at 35°C, with the lid removed, for 15 min. |
| Inoculum | Suspension in broth or physiological solution to 0.5-1 McFarland, ref. 80405. To make a broth suspension, use Brain Heart Infusion (BHI) broth, ref. 24104 or Muller Hinton Broth (MHB), ref. 24107. |
| Incubation | 41 ± 1°C, microaerobic atmosphere (10% CO ₂ / 5% O ₂ / 85% N ₂), 24 hours. Some <i>C. coli</i> isolates may not have sufficient growth after 24 hours incubation. These are re-incubated immediately and results read after a total of 40-48 h incubation. Do not invert plates due to excessive capsular material that may be produced. |
| Interpretation | Bactericidal drugs: interpret at complete inhibition of all growth, including microcolonies, hazes and isolated colonies. Bacteriostatic drugs: interpret at 80% inhibition when trailing is seen. Campylobacter colonies may be translucent and difficult to interpret. Tilt the plate and/or use oblique light or a magnifying glass when reading the M.I.C. end point. Capsular material from highly mucoid strains may deform the inhibition ellipse. Repeat the test if necessary and do not incubate plates upside down. |

| | Quality Control (MIC µg/mL) <i>C. jejuni</i> ATCC® 33560 | CLSI INTERPRETATION MIC Criteria (µg/mL) | | | EUCAST INTERPRETATION MIC Criteria (µg/mL) | | Example of ANTIBIOGRAM 140 mm petri dish |
|--------------------------|---|---|----|-----|---|------|--|
| | | S | I | R | S | R | |
| AZM AZITHROMYCIN | 0.03-0.12 | | | | | | |
| CIP CIPROFLOXACIN | 0.03-0.12 | ≤1 | 2 | ≥4 | ≤0.01 | >0.5 | ✓ |
| DXT DOXYCYCLINE | 0.12-0.5 | ≤2 | 4 | ≥8 | | | ✓ or MRP |
| E ERYTHROMYCIN | 0.25-2 | ≤8 | 16 | ≥32 | | | ✓ |
| <i>C. jejuni</i> | | | | | ≤4 | >4 | |
| <i>C. coli</i> | | | | | ≤8 | >8 | |
| CN GENTAMICIN | 0.25-2 | | | | | | ✓ 0.016 - 256 |
| LEV LEVOFLOXACIN | 0.03-0.25 | | | | | | |
| MRP MEROPENEM | 0.008-0.03 | | | | | | |
| TE TETRACYCLINE | 0.25-1 | ≤4 | 8 | ≥16 | ≤2 | >2 | |

Susceptible (S), Intermediate (I), Resistant (R)

Disclaimer: The table is intended for general guidance only and may not contain all the necessary information. Also reported interpretive criteria and QC MIC ranges might be out of date. Always current guidelines from CLSI and/or EUCAST should be consulted.

References

1. CLSI M100. Performance Standards for Antimicrobial Susceptibility Testing. 31st Edition, 2021.
2. EUCAST. Breakpoint tables for interpretation of MICs and zone diameters, Version 11.0, 2021.
3. EUCAST Disk Diffusion Method for Antimicrobial Susceptibility Testing - Version 9.0, 2021.
4. CLSI M45. Methods for Antimicrobial Dilutions and Disk Susceptibility Testing of Infrequently Isolated or Fastidious Bacteria; 3rd Edition, 2016.

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