Fast detection of ESBL-producing organisms

Prevention saves lives, saves time, saves money

**Thermo Scientific™ Spectra™ ESBL Medium**
An innovative must-have for HAI surveillance programs, Spectra ESBL is a selective and differential growth medium for use in primary isolation and presumptive identification of extended-spectrum beta-lactamase (ESBL)-producing organisms.

**Dynamic infection prevention & control**
- Faster screening facilitates earlier intervention
- More cost-effective than screening with antimicrobial susceptibility testing (AST) methods

**Streamlined workflow for targeted, active surveillance**
- Screen positive within 18 to 24 hours directly from perirectal swabs or fresh stool specimen
- Easier interpretation and less screening work up compared to traditional methods
- No special handling required, not light sensitive

**Performance**
- More than one thousand rectal swabs or fecal samples from three hospitals throughout the US were evaluated on Spectra ESBL, with the following results:

<table>
<thead>
<tr>
<th>Report clinical performance 24 hours</th>
<th>Sensitivity</th>
<th>Specificity</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>98%</td>
<td>89%</td>
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</table>

**Superior sensitivity & specificity**
- High sensitivity for effective infection prevention and control programs
- High specificity reduces costs incurred due to unnecessary isolation or additional testing

The Centers for Disease Control and Prevention (CDC) classifies ESBL-producing organisms as a serious threat that requires prompt and sustained action. Nineteen percent of healthcare-associated *Enterobacteriaceae* infections are caused by ESBL-producing organisms¹, and colonization rates with ESBL-producing *Enterobacteriaceae* are increasing².

The treatment of choice for ESBL-producing organisms are carbapenems, which makes intervention before infection even more critical, as increased use of carbapenems can lead to carbapenem-resistant organisms, which are resistant to all or nearly all available antibiotics³.¹
Stopping the spread of ESBL-producing organisms requires an effective infection prevention program

Thermo Fisher Scientific offers a full range of ESBL screening and testing solutions including the Thermo Scientific™ Sensititre™ System for susceptibility testing. Our expertise is backed by stringent quality assurance, reliable service, on-time delivery and superior customer support.

### Screening Procedure

**Inoculate Spectra ESBL plate directly with loopful of specimen**

**Incubate plates at 35°C +/- 2°C for 18–24 hours**

**READ RESULTS**

- **Positive***
  - E. coli, Klebsiella pneumoniae or Klebsiella oxytoca: Blue-turquoise-green colonies
  - Proteus mirabilis: Tan colonies with brown halo
  - Acinetobacter spp.: Cream colonies, same as non-pigmented Pseudomonas spp.
  - β-galactosidase-negative E. coli: Pink colonies

- **Non-target Organisms**
  - Pseudomonas spp.: Cream or naturally pigmented colonies e.g., green/brown
  - Enterobacter, Serratia, Citrobacter: Green colonies
  - **β-lactamase-producing organisms**

Some fecal samples will react with the chromogen resulting in a blue background color. Colonies growing in the area may not have the expected color and should be further analyzed. In the clinical laboratory, specimens are routinely streaked for isolation. Colonies growing outside the matrix show the expected color.

### Spectra Ready-Poured Plates

**Ordering Information**

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<tr>
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### Additional Products

**Ordering Information**

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### References


To learn more about the Thermo Scientific Spectra range of chromogenic media and the fight against the spread of deadly organisms, please visit [thermofisher.com/preparedmedia](http://thermofisher.com/preparedmedia)