CHROMagar™ Acinetobacter

For Research Use Only (RUO). Not for use in diagnostic procedures.

MEDIUM PURPOSE
Chromogenic medium for detection of Acinetobacter and MDR Acinetobacter spp.

Acinetobacter baumannii is becoming a major hospital-acquired infection issue because of its often multi-drug resistance (MDR: resistance to C3G, quinolones, carbapenems etc). This contributes to the increase of morbidity and mortality. Active surveillance is necessary to control its spread in the facilities, to reduce the risk of cross contamination, and to identify the carriers. Rapid identification of patients that are colonized with Acinetobacter would lead to infection control practices aimed at preventing spread of the organisms.

PREPARATION (Calculation for 1 L)

- Disperse slowly 32.8 g of powder base in 1 L of purified water.
- Add 4.0 mL of the liquid supplement AC092(S) into slurry.
- Stir until agar is well thickened.
- Heat and bring to boil (100 °C) while swirling or stirring regularly.
- DO NOT HEAT TO MORE THAN 100 °C. DO NOT AUTOCLAVE AT 121 °C.
- Warning 1: If using an autoclave, do so without pressure.
- Advice: in case of product samples containing a high load of Pseudomonas and/or Aeromonas, Cefsulodin can be added at 5 mg/L.
- Cool in a water bath to 45-50 °C, swirling or stirring gently.

OPTION: If screening is focused on MDR Acinetobacter, add the MDR Selective supplement ref CR102 as following:

- Rehydrate one vial with 5 mL of purified water.
- Add 5 mL of this solution to the melted mix (step 1) at 45-50 °C.
- Stir well for homogenization.

STORAGE
15-30 °C

FINAL MEDIA pH
7.0 +/- 0.2

REFERENCES

<table>
<thead>
<tr>
<th>Pack Size</th>
<th>Ordering References</th>
<th>Base (B)</th>
<th>Supplement (S)</th>
<th>MDR Supplement</th>
</tr>
</thead>
<tbody>
<tr>
<td>5000 mL</td>
<td>=</td>
<td>AC092</td>
<td>=</td>
<td></td>
</tr>
<tr>
<td>5000 mL</td>
<td>=</td>
<td>CR102</td>
<td>=</td>
<td>MDR suppl. (optional)</td>
</tr>
</tbody>
</table>

COMPOSITION
The product is composed of a powder base and 2 supplements.

<table>
<thead>
<tr>
<th>Product</th>
<th>Base (B)</th>
<th>Supplement (S)</th>
<th>MDR Supplement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total g/L</td>
<td>32.8 g/L</td>
<td>4 mL/L</td>
<td>5 vials (1 vial = qsf 1000 mL of final media)</td>
</tr>
<tr>
<td>Composition g/L</td>
<td>Agar 15.0</td>
<td>Growth and regulator factors</td>
<td></td>
</tr>
<tr>
<td>Peptone and yeast extract 12.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salts 4.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chromogenic mix 1.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aspect</td>
<td>Powder Form</td>
<td>Liquid Form</td>
<td>freeze dried vials</td>
</tr>
<tr>
<td>STORAGE</td>
<td>15-30 °C</td>
<td>15-30 °C</td>
<td>2-8 °C</td>
</tr>
</tbody>
</table>

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- Add 5 mL of this solution to the melted mix (step 1) at 45-50 °C.
- Stir well for homogenization.

STORAGE
15-30 °C

FINAL MEDIA pH
7.0 +/- 0.2
**SPECIMEN COLLECTION AND HANDLING**
CHROMagar™ Acinetobacter can be used with the following specimens: stools, urine, wounds, nasal and rectal specimens.

Use of transport devices approved for collection of such specimens is recommended.

**MATERIAL REQUIRED BUT NOT PROVIDED**
Standard microbiological laboratory material for culture media preparation, control, streaking, incubation and waste disposal.

**INOCULATION**
Related samples can be processed by direct streaking on the plate.
- If the agar plate has been refrigerated, allow to warm to room temperature before inoculation.
- Streak sample onto plate.
- Incubate in aerobic conditions at 35-37 °C for 18-24 hours.

**INTERPRETATION**

<table>
<thead>
<tr>
<th>Microorganism</th>
<th>Typical colony appearance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acinetobacter sp.</td>
<td>→ Red</td>
</tr>
<tr>
<td>Other Gram (-)</td>
<td>→ Mostly inhibited or blue</td>
</tr>
<tr>
<td>Gram (+) bacteria &amp; yeasts</td>
<td>→ Mostly inhibited</td>
</tr>
</tbody>
</table>

**CHROMagar™ Acinetobacter with MDR Selective supplement**

<table>
<thead>
<tr>
<th>MDR Acinetobacter</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MDR Acinetobacter</td>
<td>→ Red</td>
</tr>
<tr>
<td>Non-MDR Acinetobacter</td>
<td>→ Mostly inhibited</td>
</tr>
<tr>
<td>Other Gram (-)</td>
<td>→ Mostly inhibited or blue</td>
</tr>
<tr>
<td>Gram (+) bacteria &amp; yeasts</td>
<td>→ Mostly inhibited</td>
</tr>
</tbody>
</table>

**QUALITY CONTROL**
Please perform Quality Control according to the use of the medium and the local QC regulations and norms.

Good preparation of the medium can be tested, isolating the following ATCC strains:

<table>
<thead>
<tr>
<th>Microorganism</th>
<th>Typical colony appearance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acinetobacter baumannii ATCC® 19606</td>
<td>→ red</td>
</tr>
<tr>
<td>E. faecalis ATCC® 29212</td>
<td>→ inhibited</td>
</tr>
<tr>
<td>C. tropicalis ATCC® 1369</td>
<td>→ inhibited</td>
</tr>
</tbody>
</table>

**PERFORMANCE**
In the following study, 2044 rectal and nasal swabs were tested and read after 24 h incubation at 37 °C in aerobic conditions.

<table>
<thead>
<tr>
<th></th>
<th>CHROMagar™ Acinetobacter</th>
<th>Reference Method (Drigalski)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensibility</td>
<td>100 % *</td>
<td>46 %</td>
</tr>
<tr>
<td>Specificity</td>
<td>99,2 % *</td>
<td>90 %</td>
</tr>
</tbody>
</table>

* Data obtained from the study «Overnight identification of imipenem-resistant Acinetobacter baumanii carriage in hospitalized patients» Olivier Gaillot et Al. ICAAC 2010

**LIMITATIONS AND COMPLEMENTARY TESTS**
- **Definite Acinetobacter** may require additional confirmatory testing such as biochemical or immunological test: Latex agglutination confirmation test can be performed directly from the plates on suspected colonies.
- Some other non-fermenting gram negative strains such as *Pseudomonas* sp. or *Stenotrophomonas* sp. can display similar colouration appearance as *Acinetobacter*.
- These bacteria, well-known to be frequently Multi-Drug Resistant, can grow even in presence of the MDR Selective supplement.
- *Pseudomonas* strains can be easily differentiated performing an oxydase test.
- *Stenotrophomonas* strains can be easily distinguished as forming tiny colonies at 18-24h.
- Some *Enterobacteriaceae* strains may grow as blue to metallic blue colonies.

**WARNINGS AND PRECAUTIONS**
- For Research Use Only (RUO). Not for use in diagnostic procedures.
- This laboratory product should be used only by trained personnel (healthcare professional, etc). Wear appropriate protective clothing, gloves and eye/face protection and handle appropriately with procedures and good laboratory practices.
- Use of the medium may be difficult for people who have problems recognising colours.
- For a good microbial detection, collection and transport of specimen should be well handled and adapted to the particular specimen according to good laboratory practices.
- Culture media should not be used as manufacturing material or components.
- Do not ingest or inhale the product.
- Do not use the product after the expiry date.
- Do not use the product if it show any evidence of contamination or any sign of deterioration.
- Do not use the product if the packaging is damaged.
- Any change or modification in the procedure may affect the results.
- Any change or modification of the required storage temperature may affect the performance of the product.
• Unappropriate storage may affect the shelf life of the product.
• Recap the bottles/vials tightly after each preparation and keep them in a low humidity environment, protected from moisture and light.
• Reading and interpretation should be performed using isolated colonies.
• Interpretation of the test results should be made taking into consideration colonial and microscopic morphology and if necessary, the results of any other tests performed.
• Laboratory, chemical or biohazardous wastes must be handled and discarded in accordance with all local and national regulations.
• For hazard and precaution recommendations related to some chemical components in this medium, please refer to the pictogram(s) mentioned on the labels. The Safety Data Sheet (SDS) is available on www.chromagar.com.

DISPOSAL OF WASTE
After use, all plates and any other contaminated materials must be sterilized or disposed of by appropriate internal procedures and in accordance with local legislations. Plates can be destroyed by autoclaving at 121 °C for at least 20 minutes.

LITERATURE REFERENCES
Please refer to our website page «Publications» for scientific publications about this particular product.
Web link: http://www.chromagar.com/publication.php

IFU/LABEL INDEX

REF  Catalogue reference
 Consult instructions for use
 Quantity of powder sufficient for X liters of media
 Expiry date
 Required storage temperature
 Store away from humidity
 Protect from light
 Manufacturer