Drigalski Selective Agar

**Intended Use:**
Recommended for the selective isolation of Enterobacteria from urine, stool and other clinical samples on the basis of their ability to ferment lactose.

**Composition**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Gms / Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peptone</td>
<td>15.000</td>
</tr>
<tr>
<td>Yeast Extract</td>
<td>3.000</td>
</tr>
<tr>
<td>HM extract#</td>
<td>3.000</td>
</tr>
<tr>
<td>Sodium deoxycholate</td>
<td>1.000</td>
</tr>
<tr>
<td>Sodium thiosulphate</td>
<td>1.000</td>
</tr>
<tr>
<td>Lactose</td>
<td>15.000</td>
</tr>
<tr>
<td>Crystal violet</td>
<td>0.005</td>
</tr>
<tr>
<td>Bromothymol blue</td>
<td>0.080</td>
</tr>
<tr>
<td>Agar</td>
<td>11.000</td>
</tr>
<tr>
<td>Final pH (at 25°C)</td>
<td>7.4±0.2</td>
</tr>
</tbody>
</table>

**Directions**

Suspend 49.09 grams in 1000 ml purified / distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C. Mix well and pour into sterile Petri plates.

**Principle And Interpretation**

Drigalski Selective Agar, is formulated by Ewing (2), based on the medium developed by Drigalski and Conrad (1) for the detection of enteric pathogens.

The medium contains lactose as the source of carbon and fermentable carbohydrate. Peptone, yeast extract and HM extract provide nitrogenous nutrients to the organisms. Crystal violet and sodium deoxycholate inhibit the development of gram positive bacteria. Bromothymol blue is the pH indicator in the medium. Lactose fermenters produce acid and thus change the colour to yellow with yellow zones. Lactose non-fermenters develop blue colonies on the medium due to alkalization. Non lactose fermenting gram-negative (enteric) pathogens (Salmonella, Shigella, Proteus, Pseudomonas) form blue to green colonies whereas lactose fermenting coliform organisms (E.coli, Klebsiella, Enterobacter) form yellow colonies due to acid production and decrease in pH.

**Type of specimen**

Clinical samples - Urine, stool

**Specimen Collection and Handling:**

For use, contaminated materials must be sterilized by autoclaving before discarding.

**Warning and Precautions:**

In Vitro diagnostic Use only. Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets.

**Limitations:**

1. Further biochemical and serological tests must be carried out for further identification.

Please refer disclaimer Overleaf.
**Performance and Evaluation**

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

**Quality Control**

**Appearance**

Light yellow to greenish yellow homogeneous free flowing powder, may have slight dye particles

**Gelling**

Firm, comparable with 1.1% Agar gel.

**Colour and Clarity of prepared medium**

Green coloured, clear to slightly opalescent gel forms in Petri plates

**Reaction**

Reaction of 4.91% w/v aqueous solution at 25°C. pH : 7.4±0.2

**Cultural Response**

Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

<table>
<thead>
<tr>
<th>Organism</th>
<th>Inoculum (CFU)</th>
<th>Growth</th>
<th>Recovery</th>
<th>Colour of colony</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Klebsiella pneumoniae</em> ATCC 13883 (00097*)</td>
<td>50-100</td>
<td>good-luxuriant</td>
<td>&gt;=50%</td>
<td>yellow, mucoid</td>
</tr>
<tr>
<td><em>Escherichia coli</em> ATCC 25922 (00013*)</td>
<td>50-100</td>
<td>luxuriant</td>
<td>&gt;=50%</td>
<td>yellow</td>
</tr>
<tr>
<td><em>Salmonella Typhi</em> ATCC 6539</td>
<td>50-100</td>
<td>luxuriant</td>
<td>&gt;=50%</td>
<td>blue to green</td>
</tr>
<tr>
<td><em>Shigella flexneri</em> ATCC 12022 (00126*)</td>
<td>50-100</td>
<td>luxuriant</td>
<td>&gt;=50%</td>
<td>blue to green</td>
</tr>
<tr>
<td><em>Pseudomonas aeruginosa</em> ATCC 27853 (00025*)</td>
<td>50-100</td>
<td>good</td>
<td>&gt;=50%</td>
<td>blue-green</td>
</tr>
</tbody>
</table>

Key : *Corresponding WDCM numbers.

**Storage and Shelf Life**

Store between 10-30°C in a tightly closed container and the prepared medium at 20-30°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use. Use before expiry date on the label.

Product performance is best if used within stated expiry period.

**Disposal**

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (3,4).

**Reference**

In vitro diagnostic medical device

CE Marking

Storage temperature

10°C - 30°C

Do not use if package is damaged

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