**Aeromonas Isolation Medium HiCynth™ Base**  
**MCD884**

**Intended use**
Recommended for selective and differential isolation of *Aeromonas hydrophila* from clinical and environmental specimens.

**Composition**

**Ingredients**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Gms / Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>HiCynth™ Peptone No.1*</td>
<td>5.000</td>
</tr>
<tr>
<td>HiCynth™ Peptone No.6*</td>
<td>3.000</td>
</tr>
<tr>
<td>L-Lysine hydrochloride</td>
<td>3.500</td>
</tr>
<tr>
<td>L-Arginine hydrochloride</td>
<td>2.000</td>
</tr>
<tr>
<td>Inositol</td>
<td>2.500</td>
</tr>
<tr>
<td>Lactose</td>
<td>1.500</td>
</tr>
<tr>
<td>Sorbose</td>
<td>3.000</td>
</tr>
<tr>
<td>Xylose</td>
<td>3.750</td>
</tr>
<tr>
<td>Bile salts</td>
<td>3.000</td>
</tr>
<tr>
<td>Sodium thiosulphate</td>
<td>10.670</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>5.000</td>
</tr>
<tr>
<td>Ferric ammonium citrate</td>
<td>0.800</td>
</tr>
<tr>
<td>Bromo thymol blue</td>
<td>0.040</td>
</tr>
<tr>
<td>Thymol blue</td>
<td>0.040</td>
</tr>
<tr>
<td>Agar</td>
<td>12.500</td>
</tr>
<tr>
<td><strong>Final pH (at 25°C)</strong></td>
<td>8.0±0.2</td>
</tr>
</tbody>
</table>

**Directions**
Suspend 28.15 grams in 500 ml purified / distilled water. Heat to boiling to dissolve the medium completely. **DO NOT AUTOCLAVE.** Cool to 45-50°C and aseptically add rehydrated contents of 1 vial of Aeromonas Selective Supplement (FD039). Mix well and pour into sterile Petri plates.

**Principle And Interpretation**
*Aeromonas* species occur widely in soil and water where these species cause disease in fish and amphibians. Also found in untreated and chlorinated drinking water, raw food and raw milk (3,18). It is observed that the major cause of gastrointestinal infections by *Aeromonas* species (3,4) is because of ingesting infected water (6,7). This medium therefore, may be considered as a useful diagnostic aid for investigating diarrhoeal disease (1,12). Aeromonas medium was found to be superior over some other formulae for detection of *Aeromonas* species in tap water, bottled water and foods including meat, poultry, fish and seafood (5,8,19). Aeromonas Isolation medium is based on the formulation of Ryan (16). It is a modification of medium, which supports the growth of *Aeromonas, Plesiomonas, Proteus*, as well as *Enterobacteriaceae* so the medium is used as universal medium in the investigation of enteric disease. Aeromonas Isolation HiCynth™ Agar Base is prepared by completely replacing animal or vegetable based peptones with chemically defined peptones to avoid BSE/TSE risks associated with animal peptones. The selectivity of the medium is increased by the addition of Ampicillin (3). The effectiveness of Ampicillin as a selective agent has been reported by several workers (1,11,14,15) It was noted that the recovery of *Aeromonas* species was very low from fresh foods of animal origin when cultivated on clinical media. Also difficulties were encountered in distinguishing the *Aeromonas hydrophila* group from the background microflora. Polumbo et.al formulated Starch Ampicillin (SA) Agar with starch hydrolysis as the differential trait and ampicillin to suppress the background microflora (13).

HiCynth™ Peptone No.1 and HiCynth™ Peptone No.6 provide essential nitrogenous and carbonaceous compounds, long chain amino acids, vitamins and other essential growth nutrients. The salts provide the essential minerals and electrolytes. Sodium chloride maintains osmotic equilibrium. Lactose, sorbose, inositol and xylose are sources of carbon and energy. Ampicillin, synthetic detergent and sodium thioglycollate makes the medium selective. Bromothymol blue and thymol blue acts as indicators giving the characteristic colony colour.

**Type of specimen**
Clinical samples - faeces; food samples; water samples

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Please refer disclaimer Overleaf.
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Technical Data

**Quality Control**

**Appearance**
Light yellow to light tan homogeneous free flowing powder

**Gelling**
Firm, comparable with 1.25% Agar gel.

**Colour and Clarity of prepared medium**
Dark green coloured clear to slightly opalescent gel forms in Petri plates.

**Reaction**
Reaction of 5.63% w/v aqueous solution at 25°C. pH : 8.0±0.2

**pH**
7.80-8.20

**Cultural Response**
Cultural characteristics observed with added Aeromanas Selective Supplement (FD039) 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>Colony characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Aeromonas hydrophila</em></td>
<td>50-100</td>
<td>luxuriant</td>
<td>&gt;=50%</td>
<td>dark green, opaque with dark centre</td>
</tr>
<tr>
<td>ATCC 7966 (00063*)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Escherichia coli</em> ATCC 25922</td>
<td>&gt;=10⁴</td>
<td>inhibited</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>(00013*)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Pseudomonas aeruginosa</em></td>
<td>50-100</td>
<td>good-luxuriant</td>
<td>&gt;=50%</td>
<td>blue/grey, transluscent pinpoint</td>
</tr>
<tr>
<td>ATCC 27853 (00025*)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Salmonella Typhi</em> ATCC 6539</td>
<td>&gt;=10⁴</td>
<td>inhibited</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td><em>Shigella flexneri</em> ATCC 12022</td>
<td>&gt;=10⁴</td>
<td>inhibited</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>(00126*)</td>
<td></td>
<td></td>
<td></td>
<td></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 2 - 8°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. 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 technique (9,10)
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Technical Data

Reference


Revision : 03 / 2019

In vitro diagnostic medical device

CE Marking

Storage temperature

Do not use if package is damaged

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