Hoyles Media Plates with Supplement

For selective isolation and differentiation of *Corynebacterium* diphtheria types.

**Composition**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Gms / Litre</th>
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<tbody>
<tr>
<td>Peptic digest of animal tissue</td>
<td>10.000</td>
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<tr>
<td>Beef extract</td>
<td>10.000</td>
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<tr>
<td>Sodium chloride</td>
<td>5.000</td>
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<tr>
<td>Agar</td>
<td>15.000</td>
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</table>

**Formula adjusted, standardized to suit performance parameters**

**Directions**

Either streak, inoculate or surface spread the test inoculum (50-100 CFU) aseptically on the plate.

**Principle And Interpretation**

The most common disease caused by *Corynebacterium diphtheriae* is diphtheria, an acute communicable disease manifested by both local infection of the upper respiratory tract and the systemic effects of the toxin, which are most notable in the heart and peripheral nerves (1). Hoyle Medium Base, formulated by Hoyle (2), is the modification of the original formulation of Neill, for the isolation and differentiation of *C. diphtheriae*. This medium is not inhibitory to some mitis types of *Corynebacterium*, as the original formulation.

Peptic digest of animal tissue and beef extract supply essential growth nutrients. Potassium tellurite is a selective agent, which inhibits most of the normal flora of the upper respiratory tract except *Corynebacterium*. Hoyles Medium is a highly selective medium and should be used in conjunction with a non-selective media such as Loeffler Serum Medium (M537) and Blood Agar Base (M089) with 10% horse blood (3).

*C.diphtheriae* are usually present in small numbers permitting the formation of well isolated colonies. So, inoculation is done by directly rubbing the swab over the entire surface of the medium. Incubation should be carried out till 72 hours if the results are negative. To study the morphology, gentian violet staining is done. To demonstrate the characteristic morphology and staining reactions of *C. diphtheriae* by Neissers or Alberts method, it is advisable to use colonies from Loeffler Medium. The toxigenicity of *C. diphtheriae* strains can be determined by Eleks (4) method.

**Quality Control**

**Appearance**
Sterile Hoyle Medium w/Blood and Tellurite in 90 mm disposable plates.

**Colour**
Brownish Red coloured medium

**Quantity of medium**
25ml of medium in disposable plate

**Reaction**
7.60 - 7.80

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

**Sterility Test**
Passes release criteria.

<table>
<thead>
<tr>
<th>Organism</th>
<th>Inoculum (CFU)</th>
<th>Growth</th>
<th>Recovery</th>
<th>Colony characteristics</th>
</tr>
</thead>
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</table>

**Cultural response**

Please refer disclaimer Overleaf.
**Bacillus subtilis ATCC 6633**

- Inhibited: $\geq 10^3$
- Good-luxuriant: 50-100

**C. diphtheriae type intermedius 14779**

- Good-luxuriant: $\geq 50$
- Grey colonies with darker centers

**Corynebacterium diphtheriae type mitis**

- Good-luxuriant: $\geq 50$
- Grey colonies with shining surface

**Escherichia coli ATCC 25922**

- Inhibited: $\geq 10^3$

**Enterococcus faecalis ATCC 50-100 29212**

- Good-luxuriant: $\geq 50$
- Black minute colonies

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**Storage and Shelf Life**

Store between 15-25°C. Use before expiry date on the label.

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**Reference**


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**Disclaimer:**

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