ISP Medium No. 3

ISP Medium No. 3 is used for the cultivation and characterization of *Streptomyces* species as per International Streptomyces Project.

**Composition**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Gms / Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oat Meal</td>
<td>20.000</td>
</tr>
<tr>
<td>Agar</td>
<td>18.000</td>
</tr>
<tr>
<td>Trace salts,</td>
<td>-</td>
</tr>
<tr>
<td>Ferric sulphate heptahydrate</td>
<td>0.001</td>
</tr>
<tr>
<td>Manganese chloride tetrahydrate</td>
<td>0.001</td>
</tr>
<tr>
<td>Zinc sulphate heptahydrate</td>
<td>0.001</td>
</tr>
<tr>
<td>Final pH (at 25°C)</td>
<td>7.3±0.2</td>
</tr>
</tbody>
</table>

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

**Directions**

Suspend 38 grams (equivalent weight of dehydrated medium per litre) in 1000 ml 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 and mix intermittently while pouring into sterile Petri plates for even distribution of oatmeal.

**Principle And Interpretation**

ISP Medium No. 3 is formulated based on the original formula of Shirling and Gottlieb (1). The medium is often referred to as Oat Meal Agar.

Oatmeal provides the necessary nutrients for growth of *Streptomyces*. The trace salts solution that constitutes of ferric sulphate, manganese chloride and zinc sulphate provide the essential electrolytes and minerals. The concentration of these salts used per litre in the medium is 1.0 mg (concentration of 0.1 mg%). Inoculate ISP Medium No.1 (M356) with the test organisms and incubate at 30°C ± 0.2 for upto 96 hours.

Inoculate the plates of ISP Medium No. 3 by streaking, using 0.1 ml of this test culture inoculum.

**Quality Control**

**Appearance**
Cream to beige homogeneous free flowing powder

**Gelling**
Firm, comparable with 1.8% Agar gel

**Colour and Clarity of prepared medium**
Very light amber coloured opalescent gel with precipitation forms in Petri plates.

**Reaction**
Reaction of 3.8% w/v aqueous solution at 25°C. pH : 7.3±0.2

**pH**
7.10-7.50

**Cultural Response**
M358: Cultural characteristics observed after an incubation at 35-37°C for 48-72 hours.

<table>
<thead>
<tr>
<th>Organism</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Streptomyces achromogenes</em> ATCC 12767</td>
<td>good-luxuriant</td>
</tr>
<tr>
<td><em>Streptomyces albus subsp</em> albus ATCC 3004</td>
<td>good-luxuriant</td>
</tr>
</tbody>
</table>

Please refer disclaimer Overleaf.
Streptomyces lavendulae  good-luxuriant
ATCC 8664

Storage and Shelf Life
Store below 30°C in tightly closed container and prepared medium at 2-8°C. Use before expiry period on the label.

Reference

Disclaimer:
User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal or therapeutic use but for laboratory, diagnostic, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.