Phyto Starch Tyrosine Peptone Agar

Phyto Starch Tyrosine Peptone Agar is a semi-selective medium for the detection of *Xanthomonas axonopodis* pv. *phaseoli* in seeds of beans on the basis of pigment production.

**Composition**: 

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Grams/Litre</th>
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</thead>
<tbody>
<tr>
<td>Peptone special</td>
<td>10.00</td>
</tr>
<tr>
<td>L-tyrosine</td>
<td>1.00</td>
</tr>
<tr>
<td>Soluble starch</td>
<td>2.00</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>5.00</td>
</tr>
<tr>
<td>Agar</td>
<td>15.00</td>
</tr>
</tbody>
</table>

**Formula adjusted standard to suit the performance parameter**

**Direction**:  

Suspend 33 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize the medium by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and pour into sterile Petri plates.

**Principle and Interpretation**

Phyto Starch Tyrosine Peptone Agar is used as a general purpose medium for cultivation of bacteria. Common blight also referred to as common bacterial blight is a major disease of bean caused by *Xanthomonas axonopodis* pv. *phaseoli*.

This is a semi-selective medium for the detection of *Xanthomonas axonopodis* pv. *phaseoli* in bean seed. This medium is useful in distinguishing fuscans which show brown pigmentation from non-fuscans strains which lacks pigmentation (1).  

Peptone special provides nitrogenous compounds and vitamins to the organism. L-tyrosine serves as an amino acid source. Sodium chloride maintains the osmotic balance.

**Quality Control**

**Appearance**:  
Cream to yellow coloured, homogeneous, free flowing powder.

**Gelling**:  
Firm, comparable with 1.5% Agar gel.

**Colour and Clarity of prepared medium**:  
Yellow coloured, opalescent gel forms in Petri plates.
PHM014  Phyto Starch Tyrosine Peptone Agar

Cultural Response:

<table>
<thead>
<tr>
<th>Organism (ATCC)</th>
<th>Growth</th>
<th>Colour of the Colony</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xanthomonas axonopodis pv. phaseoli</td>
<td>luxuriant</td>
<td>brown</td>
</tr>
</tbody>
</table>

References:

Storage and Shelf-life:
Store below 30°C and the prepared medium at 2 - 8°C. Use before expiry date on the label.

Disclaimer:
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