



PHM014

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 **:

Ingredients	Grams/Litre
Peptone special	10.00
L-tyrosine	1.00
Soluble starch	2.00
Sodium chloride	5.00
Agar	15.00

**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

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Phyto Starch Tyrosine Peptone Agar**Cultural Response:****Organism (ATCC)***Xanthomonas axonopodis* pv. *phaseoli***Growth**

luxuriant

Colour of the Colony

brown

References:

1. Van Vuurde J.W.L., Van den Bovenkamp, G.W. and Bimbaum, y. 1983 Immunofluorescence microscopy and enzyme linked immunosorbent assay as potential routine tests for the detection of *Pseudomonas syringae* pv. *phaseolicola* and *Xanthomonas campestris* pv. *phaseoli* in bean seeds. Seed Sc. & Technol. 11 : 547-559.

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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