



## ISP Medium No. 6 (Peptone Yeast Extract Iron Agar)

M361

ISP Medium No. 6 (Peptone Yeast Extract Iron Agar) is recommended for the cultivation and maintenance of *Streptomyces* species as per International Streptomyces Project.

### Composition\*\*

Ingredients	Gms / Litre
Peptic digest of animal tissue	15.000
Proteose peptone	5.000
Yeast extract	1.000
Ferric ammonium citrate	0.500
Dipotassium phosphate	1.000
Sodium thiosulphate	0.080
Agar	15.000
Final pH ( at 25°C)	6.7±0.2

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

### Directions

Suspend 37.58 grams 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. Mix well and pour into sterile Petri plates.

### Principle And Interpretation

ISP Medium No. 6 (Peptone Yeast Extract Iron Agar) is recommended by International Streptomyces Project for the cultivation and maintenance of *Streptomyces* species (1, 2).

Peptic digest of animal tissue, proteose peptone and yeast extract provide carbon, nitrogen, sulphur, vitamin B complex and other essential growth nutrients. Dipotassium hydrogen phosphate gives the medium good buffering capacity. Ferric ammonium citrate and sodium thiosulphate together serve as hydrogen sulphide indicator system.

### Quality Control

#### Appearance

Cream to yellow homogeneous free flowing powder

#### Gelling

Firm, comparable with 1.5% Agar gel

#### Colour and Clarity of prepared medium

Yellow coloured, clear to slightly opalescent gel forms in Petri plates

#### Reaction

Reaction of 3.76% w/v aqueous solution at 25°C. pH : 6.7±0.2

#### pH

6.50-6.90

#### Cultural Response

M361: Cultural characteristics observed after an incubation at 30-32°C for 18-48 hours

#### Organism

#### Growth

#### Cultural Response

*Streptomyces lavendulae* good-luxuriant

ATCC 8664

*Streptomyces achromogenes* good-luxuriant

ATCC 12767

*Streptomyces albus* subsp good-luxuriant

*albus* ATCC 3006

### 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

1. Shirling E. B., and Gottlieb D., 1966, Methods for Characterization of Streptomyces species, Int. J. Syst. Bacteriol., 16:313.
2. Atlas R. M., 1993, Handbook of Microbiological Media, Parks, L.C., (Ed.), CRC Press, Inc.

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