



## Soil Extract Agar

M455

Soil Extract Agar is used for isolation of soil microorganisms.

### Composition\*\*

Ingredients	Gms / Litre
Glucose	1.000
Dipotassium phosphate	0.500
Soil extract	17.750
Agar	15.000
Final pH ( at 25°C)	6.8±0.2

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

### Directions

Suspend 34.25 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and pour into sterile Petri plates.

### Principle And Interpretation

The fertility of soil depends not only on the chemical composition but also on the qualitative and quantitative nature of microorganisms inhabiting it. Microorganisms inhabiting soil can be classified into bacteria, actinomycetes, fungi, algae and protozoa (1).

Soil is a natural medium for many organisms as they provide a perennial source of organic matter and other sources of carbon, nitrogen, minerals and vitamins required for their growth. Soil Extract Agar is a medium used for isolating soil microorganisms.

Soil extract provides all the essential nutrients required for growth of soil microorganisms (1). Glucose serves as readily metabolizable carbon source whereas dipotassium phosphate buffers the medium.

### Quality Control

#### Appearance

Cream to yellow homogeneous free flowing powder

#### Gelling

Firm, comparable with 1.5% Agar gel

#### Colour and Clarity of prepared medium

Light amber coloured clear to slightly opalescent gel forms in Petri plates

#### Reaction

Reaction of 3.43% w/v aqueous solution at 25°C. pH : 6.8±0.2

#### pH

6.60-7.00

#### Cultural Response

M455: Cultural characteristics observed after an incubation at 30°C for upto 4 days.

Organism	Growth
* <i>Aspergillus brasiliensis</i> ATCC 16404	luxuriant
<i>Candida albicans</i> ATCC 10231	luxuriant
<i>Nocardia asteroides</i> ATCC 19247	luxuriant
<i>Pseudomonas aeruginosa</i> ATCC 27853	luxuriant
<i>Saccharomyces cerevisiae</i> ATCC 9763	luxuriant

Note: \* - Formerly known as *Aspergillus niger*

### Storage and Shelf Life

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

### Reference

1. Subba Rao N. S., 1977, Soil Microorganisms and Plant Growth, p-251., Oxford and IBH Publishing Co., New Delhi.

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