

Technical Information

Emerson YSS Agar

Product Code: DM 1773

Application: - Emerson YSS Agar is recommended for the isolation of *Actinomycetes* and other fungi.

Composition**

Ingredients	Gms / Litre
Soluble starch	15.000
Yeast extract	4.000
Dipotassium phosphate	1.000
Magnesium sulphate	0.500
Agar	20.000
Final pH (at 25°C)	7.0±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Fungi are ubiquitous in nature. They are an important component in the energy cycle where they function as nature's decomposers.
⁽¹⁾ *Actinomycetes* are distributed worldwide, found as part of the indigenous microflora in soil, mud etc. and also as parasites of humans and other animals ⁽¹⁾.

Emerson YSS (Yeast Soluble Starch) Agar recommended for the isolation of *Actinomycetes* and other fungi was formulated by Emerson ⁽²⁾. This medium was used in half strength by Emerson and Wilson ⁽³⁾ to obtain single germlings from zygotes or zoospores.

Yeast extract serves as a source of B-complex vitamins, amino acids and essential nutrients. Soluble starch serves as a source of energy and carbon. It also neutralizes the toxic metabolites formed. Phosphates buffer the medium whereas magnesium sulphate acts as a source of ions and sulphates.

Standard reference for the isolation, cultivation and colony characteristics of various fungi should be followed.

Methodology

Suspend 40.5 grams of powder media in 1000 ml distilled water. If desired, half strength medium can be prepared using 20.25 grams of powder media in 1000 ml distilled water. Shake well & heat to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and pour into Petri plates.

Quality Control

Physical Appearance

Cream to pink homogeneous free flowing powder

Gelling

Firm, comparable with 2.0% agar gel.

Colour and Clarity of prepared medium

Light to medium amber coloured, opalescent gel with a slight flocculant precipitate forms in Petri plates

Reaction

Reaction of 4.05% w/v aqueous solution at 25°C. pH : 7.0±0.2

pH range: 6.8-7.2

Cultural Response/ characteristics

DM 1773: Cultural characteristics observed after an incubation at 30°C for 40-72 hours.



Dehydrated Culture Media
Bases / Media Supplements

Organism	Growth
<i>Aspergillus niger</i> ATCC 16404	luxuriant
<i>Saccharomyces cerevisiae</i> ATCC 9763	luxuriant
<i>Saccharomyces uvarum</i> ATCC 28098	luxuriant

Storage and Shelf Life

Dried Media: Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.

Prepared Media: 2-8° in sealable plastic bags for 2-5 days.

Further Reading

1. Murray P. R., Baron J. H., Pfaller M. A., Tenover J. C. and Tenover F. C., (Ed.), 2003, Manual of Clinical Microbiology, 8th Ed., American Society for Microbiology, Washington, D.C.
2. Emerson, 1941, Lloydia, 4:77.
3. Emerson and Wilson, 1954, Mycologia, 46:393.

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