

TM 1072 – RICHARD'S SYNTHETIC AGAR

INTENDED USE

For cultivation and isolation of fungi from soil samples.

PRODUCT SUMMARY AND EXPLANATION

Fungi are microscopic cells that usually grow as long threads or strands called hyphae, which push their way between soil particles, roots, and rocks. Fungi perform important services related to water dynamics, nutrient cycling, and disease suppression. Soil fungi can be grouped into three general functional groups based on how they get their energy as Decomposers, Mutualists and Pathogens. Many fungi which are commonly isolated from soil come under the class Fungi Imperfecti by virtue of the fact that they produce abundant asexual spores and lack sexual stages. Richards Synthetic Agar is used for isolation and cultivation of fungi from soil samples.

COMPOSITION

Ingredients	Gms / Ltr
Potassium nitrate	10.000
Monopotassium dihydrogen phosphate	5.000
Magnesium sulphate	2.500
Ferric Chloride	0.020
Sucrose	50.000
Agar	15.000

PRINCIPLE

The medium consists of Potassium nitrate is the source of nitrogen. Richard's Synthetic Agar is highly nutritive media with high content of sucrose which serves as carbohydrate source for the growing fungi. Various salts in the medium not only buffer the medium but also provide essential ions to the fungi.

INSTRUCTION FOR USE

- Dissolve 82.52 grams in 1000 ml purified/distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Mix well and pour into sterile petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : White to yellow homogeneous free flowing powder.

Appearance of prepared medium : Light amber coloured clear to slightly opalescent gel forms in Petri plates.

INTERPRETATION

Cultural characteristics observed after incubation.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
<i>Aspergillus niger</i>	16404	10-100	Good-luxuriant	>=50%	25-30°C	40-72 Hours
<i>Candida albicans</i>	10231	10-100	Good-luxuriant	>=50%	25-30°C	40-72 Hours
<i>Saccharomyces cerevisiae</i>	9763	10-100	Good-luxuriant	>=50%	25-30°C	40-72 Hours

PACKAGING:

In pack size of 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.










Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

1. Subba Rao N. S, Soil Microorganisms and Plant Growth-(Oxford and IBHPublishing Co.)
2. Tugel A. J., Lewandowski A. M., (Eds.), 1999, Soil Biology Primer, NRCS Soil Quality Institute, Ames, IA.

 GMP Good Manufacturing Practices Certified	 Best Before	 QTY. Quantity	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 LOT/ B. NO. Lot / Batch Number	 Consults Instructions for Use	 QR Code	

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**
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