Limabean Agar

M736

Intended Use:

Recommended for cultivation of phytopathological and other fungi.

Composition**

Ingredients	Gms / Litre
Lima beans, infusion (from 62.5 g)	08.000
Agar	15.000
Final pH (at 25°C)	5.6±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 23 grams in 1000 ml purified/distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C. Mix well and pour into sterile Petri plates.

Principle And Interpretation

Plant diseases are caused by a variety of living organisms (called pathogens) such as fungi, bacteria, viruses, nematodes, phytoplasmas, protozoa, and parasitic plants, and by non-living agents such as air pollutants, nutrient imbalances, and various environmental factors. Fungi are responsible for many diseases of plants, causing large losses in crop production. They are responsible for contaminating harvested crops with mycotoxins dangerous for public health. As such crops are the target of large-scale fungicide use, with the corresponding environmental and health hazards. Limabean Agar is recommended for cultivation of such phytopathological and other fungi (1).

Limabean Agar is composed of an infusion of dry lima beans and agar. Limabean infusion provides all essential growth nutrients for fungi. The pH of the medium is 5.6, which enables luxuriant fungal growth.

Type of specimen

Plant samples

Specimen Collection and Handling

For plant samples follow appropriate techniques for handling specimens as per established guidelines (2,3). After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions

Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations :

1. Further biochemical and serological tests must be carried out for complete identification.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

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 opalescent gel forms in Petri plates and may have slight precipitate.

Reaction

Reaction of 2.3% w/v aqueous solution at 25°C. pH : 5.6±0.2

pH
5.40-5.80

Cultural Response
Cultural characteristics observed after an incubation at 28-32°C for 40-48 hours.

Organism	Growth
# *Aspergillus brasiliensis* ATCC 16404 (00053*)	luxuriant
Candida albicans ATCC 10231 (00054*)	luxuriant
Saccharomyces cerevisiae ATCC 9763 (00058*)	luxuriant

Key : (*) Corresponding WDCM numbers. (#) Formerly known as *Aspergillus niger*

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 20-30°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use. Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with sample must be decontaminated and disposed of in accordance with current laboratory techniques (2,3).

Reference

1. Atlas R. M., 2004, Handbook of Microbiological Media, Lawrence C. Parks (Ed.), 3rd Edition, CRC Press.
2. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
3. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.

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