Dermatophytes Agar Base

Cat. 1157

For the isolation and rapid identification of dermatophytes in contaminated samples.

Practical information

Aplications	Categories
Selective isolation	Pathogenic fungi
Selective isolation	Dermatophytes

Industry: Pharmaceutical/Veterinary / Clinical

CE
IVD

Principles and uses

Dermatophytes Agar Base is a selective and differential medium used for the detection and presumptive identification of dermatophytes from clinical and veterinary specimens. Dermatophytes represent a group of three types of fungi that commonly causes skin disease in animals and humans. Dermatophytes cause cutaneous fungal infections of the hair, skin and nails generally referred to as tinea or ringworm due to their ability to obtain nutrients from keratinized material.

This media carries phenol red as a pH indicator, selective inhibitors, cycloheximide and supplements (gentamicin and chlorotetracycline). The soy peptone provides nitrogenous and carbonaceous substances essential for microbial growth. Dextrose is the fermentable carbohydrate providing carbon and energy. The pH indicator, phenol red, is used to detect acid production. Cycloheximide is an antibiotic which inhibits saprophytic fungi but allows for the growth of pathogenic
fungi. The additives, gentamicin and chlorotetracycline aid in the selectivity of the medium. Gentamicin inhibits Gram-negative bacteria including Pseudomonas species. Bacteriological agar is the solidifying agent.

Dermatophytes metabolize peptones into alkaline products, which change the pH indicator from yellow to red. Most of the other fungi use glucose as energy source, so the medium will be acidified and yellow in color.

Formula in g/L

Dextrose	10	Bacteriological agar	20
Cycloheximide	0,5	Phenol red	0,2
Soy peptone	10		

Preparation

Suspend 40,7 grams of the medium in one liter of distilled water. Mix well and dissolve by heating with frequent agitation. Sterilize in autoclave at 121 ºC for 15 minutes and dispense into plates. Aseptically add 0,1 g/L of chlortetracycline and 0,1 g/L of gentamicin.

Instructions for use

Inoculate and incubate at 28±2 ºC during 7 days.

Quality control

Solubility	Appareance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25ºC)
w/o rests	Fine powder	Pink	Yellow orange	5,6±0,2

Microbiological test

Incubation conditions: (28±2 ºC / 7 days).

Microorganisms	Specification	Characteristic reaction
Candida albicans ATCC 10231	Good growth	Red medium
Aspergillus brasiliensis ATCC 16404	Slightly inhibited	
Escherichia coli ATCC 25922	Total inhibition	
Trichophyton rubrum CECT 2794	Moderate/good growth	Red medium

Storage

Temp. Min.:2 ºC
Temp. Max.:25 ºC

Bibliography

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