



Dehydrated Culture Media  
Bases / Media Supplements

## Technical Information

### Antibiotic Assay Medium No.12 (Nystatin Assay Agar)

#### Product Code: DM 1280

**Application:** - Assay Medium No.12 (Nystatin Assay Agar) is used for microbiological assay of Amphotericin B and,, Nystatin using *Saccharomyces cerevisiae*.

#### Composition\*\*

Ingredients	Gms / Litre
Peptic digest of animal tissue (Peptone)	10.000
Sodium chloride	10.000
Dextrose	10.000
Beef extract	2.500
Yeast extract	5.000
Agar	25.000
Final pH ( at 25°C)	6.1±0.2

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

#### Principle & Interpretation

This medium is prepared from the formula of Groove and Randall <sup>(1)</sup> for assaying antifungal antibiotics like Amphotericin B and Nystatin by using this medium.

Ingredients like peptic digest of animal tissue, yeast and beef extract supplements essential nutrients, minerals and growth factors for the growth of test organism. Dextrose in the medium provides enhanced source of carbon and energy. Osmotic equilibrium in the medium is by sodium chloride which maintains the cell integrity and viability. Freshly prepared plates should be used for antibiotic assays. Test organisms are inoculated in sterilised agar pre-cooled to 40-45°C and spread evenly over the surface of solidified base agar. Prediffusion of antibiotics for 10-20 mins in the agar by incubating at temperature below the optimal growth temperature for microorganism would facilitate better diffusion of antibiotics followed by incubation of plates for microbial growth.

#### Methodology

Suspend 62.5 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.

#### Quality Control

##### Physical Appearance

Cream to yellow homogeneous free flowing powder

##### Gelling

Firm, comparable with 2.5% Agar gel.

##### Colour and Clarity of prepared medium

Yellow coloured clear to slightly opalescent gel forms in Petri plates

##### Reaction

Reaction of 6.25% w/v aqueous solution at 25°C. pH : 6.1±0.2

pH range: 5.9-6.3

##### Cultural Response/ characteristics

DM 1280: Cultural characteristics observed after an incubation at 25-30°C for 18-24 hours.





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Organism	Inoculum (CFU)	Growth	Recovery	antibiotics assayed
<i>Saccharomyces cerevisiae</i> ATCC 2601	50-100	luxuriant	>=70%	Amphotericin B, Nystatin

## 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. Grove and Randall, 1955, Assay Methods of Antibiotics Medical Encyclopedia, Inc. New York.

## Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
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