Antimycotic Sensitivity Test Agar

Intended Use
Antimycotic Sensitivity Test Agar is used for testing antimycotic sensitivity by diffusion method using antimycotic sensitivity discs.

Summary
Antimycotic Sensitivity Test Agar is recommended for testing the antimycotic activity by disc diffusion method (Sensitivity disc or MIC testing). The Clinical and Laboratory Standards Institute (CLSI) subcommittee on Antifungal Susceptibility Testing has established interpretative break point for three drugs and *Candida* spp. The M44-A document (approved standard) became available in 2004. Espinel-Ingroff suggested that easier test modification to CLSI methods are desirable. Several workers have used agar diffusion method as an alternative approach to the CLSI methods. Stiller et al observed a good correlation between MICs and growth inhibition zones for 5-FC. Pfaller *et al.,* found a fluconazole disk test to be comparable to the MIC test. Barry and Brown demonstrated good correlation between fluconazole disk test and MIC determined by either broth dilution or E Test. Espinel *et al.,* and Pfaller *et al.,* evaluated E Test and suggested that it correlates well with CLSI reference methods. However, this agreement was species and medium dependent and they suggested the need for further optimisation of medium formulation.

Principle
The medium contains casein enzymic hydrolysate and yeast extract which provide all essential growth nutrients like amino acids, vitamins, trace elements etc. Glucose serves as energy source. Disodium phosphate buffers the medium well.

Formula*
Ingredients	**g/L**
Casein enzymic hydrolysate	19.0
Yeast extract	10.0
Glucose	20.0
Sodium citrate	10.0
Disodium phosphate	1.0
Agar	25.0
Final pH (at 25°C)	6.6 ± 0.2

*Adjusted to suit performance parameters

Storage and Stability
Store dehydrated medium below 30°C in tightly closed container and the prepared medium at 2°C-8°C. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

Specimen Collection and Handling
Ensure that all samples are properly labelled.
Follow appropriate techniques for handling samples as per established guidelines.
Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure The samples must be stored and tested within the permissible time duration.
After use, contaminated materials must be sterilized by autoclaving before discarding.

Directions
1. Suspend 85.0 g of the powder in 1000 mL purified / distilled water.
2. Heat to boiling to dissolve the powder completely.
3. Sterilize by autoclaving at 121°C (15psi) for 15 minutes as per validated cycle.
4. Mix well before pouring into sterile petridishes.

Quality Control

Dehydrated Appearance: Cream to yellow coloured, homogeneous, free flowing powder.
Prepared Appearance: Amber coloured clear to slightly opalescent gel forms in petridishes.
Cultural Response: Cultural characteristics observed after an incubation of 48-72 hours at 20°C-25°C.

Organism (ATCC)	Growth	Antibiotics Assayed
Candida albicans (90028)	Good	Amphotericin B, Nystatin, Miconazole, Ketoconazole
Candida parapsillosis (22019)	Good	Amphotericin B, Nystatin, Miconazole, Ketoconazole

Note: Antibiotic disc sensitivity Test Passes.

Performance and Evaluation

Performance of the product is dependent on following parameters as per product label claim:

1. Directions
2. Storage
3. Expiry

Warranty

This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

Reference

1. Rex, J.H. et al 1997 for the Subcommittee on Antifungal Susceptibility Testing of the National Committee for Clinical Laboratory Standards. Clin. Infect. Dis. 24 : 235-247
2. National Committee for Clinical Laboratory Standards. 1997. Reference method for broth dilution antifungal susceptibility testing of yeasts; Approved standard M27-A.
3. Method for Antifungal Disk Diffusion Susceptibility Testing of Yeasts; Approved Guidelines-Second edition Vol.29 No.17, August- 2009 CLSI document M44-A2. For more details refer to this volume .
4. Zone Diameter Interpretive Standards, Corresponding Minimal Inhibitory Concentration (MIC) Interpretive Breakpoints, and Quality Control Limits for Antifungal Disk Diffusion Susceptibility Testing Of Yeasts, Third International Supplement CLSI document - M44-S3. National Committee for Clinical Laboratory Standards, villanova, Pa.
5. Espinel –Ingroff et al (1992) J.Clin. Microbiol . 30: 3138-3145
6. Stiller R.L. et al (1983) J.Infec. Dis 147: 1070-1076
7. Pfaller M.A et al (1988) J.Clin.Microbiol 26: 1437-1441
8. Barry A.L. and S.D. Brown. 1996. J. Clin. Microbiol.34:2154-2157
9. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	Product description	Pack Size
201010290100	Dehydrated Culture Media	100 g
201010290500	Dehydrated Culture Media	500 g

Disclaimer

Information provided is based on our inhouse technical data on file, it is recommended that user should validate at his end for suitable use of the product.