CM 20163 – ANTIMYCOTIC SENSITIVITY TEST AGAR

INTENDED USE

For testing antimycotic sensitivity by diffusion method using antimycotic sensitivity discs.

PRODUCTSUMMARYANDEXPLANATION

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 approch 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.

COMPOSITION

Ingredients	Gms / Ltr
Tryptone	19.000
Yeast extract	10.000
Dextrose (Glucose)	20.000
Sodium citrate	10.000
Disodium hydrogen phosphate	1.000
Agar	25.000

PRINCIPLE

The mediumcontains tryptone 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.

INSTRUCTION FOR USE

Dissolve 85.0gramsin 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. Cool to 45-50°C.
Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium	: Amber coloured clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C)	: 6.6±0.2

INTERPRETATION

Culturalcharacteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Zone of inhibiton (Amphotericin B 50 mcg)	Zone of inhibiton (Micronazole 50 mcg)	Zone of inhibiton (Micronazole 30 mcg)	Incubation Temperature	Incubation Period
Candida albicans	90028	10-100	Luxuriant	12 - 15mm	19 - 23mm	26 - 32mm	25-30°C	48-72 Hours
Candida parapsillosis	22019	10-100	11-18mm	13 - 17mm	19 - 23mm	23 - 29mm	25-30°C	48-72 Hours

PACKAGING:

Inpacksizeof500 gm bottles.

STORAGE

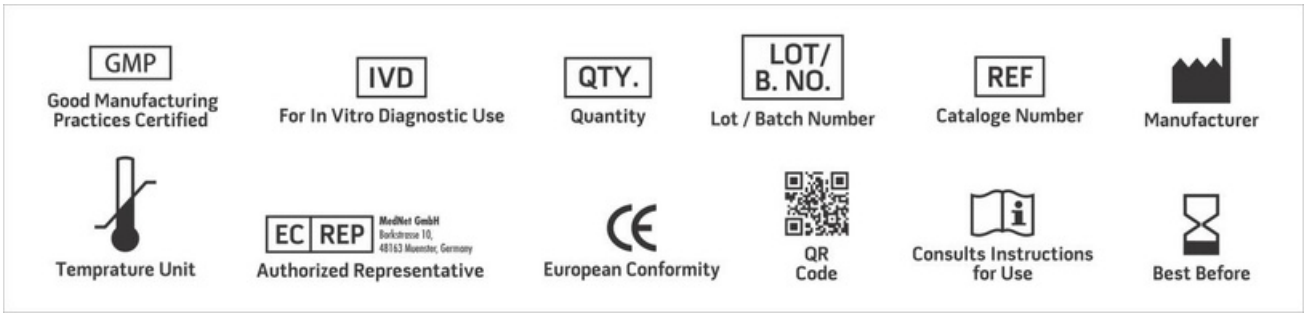
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided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

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

REFERENCES

1. BarryA.L. and S.D. Brown. 1996. J. Clin. Microbiol.34:2154-2157
2. Espinel –Ingroff et al (1992) J.Clin. Microbiol . 30: 3138-3145
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. National Committee for Clinical Laboratory Standards. 1997. Reference method for broth dilution antifungal susceptibility testing of yeasts; Approved standard M27-A.
5. Pfaller M.A et al (1988) J.Clin.Microbiol 26: 1437-1441
6. Stiller R.L. et al (1983) J.Infec. Dis 147: 1070-1076



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

*For LabUse Only