TM 1753 – ANTIBIOTIC ASSAY MEDIUM NO. 13 (as per USP)

INTENDED USE

For turbidimetric microbiological assay of Candicidin using *Saccharomyces cerevisiae* and to study the effectiveness of antibiotics on yeasts and molds.

PRODUCT SUMMARY AND EXPLANATION

This medium is formulated in accordance to USP and CFR and is numerically identical with the name assigned by Groove and Rundall. Schmidt & Moyer has reported the use of antibiotic assay medium for liquid formulation in performance of antibiotic assay. This medium is widely used in turbidometric assay of antifungals like candicidin using test organism like *Saccharomyces cerevisiae*. The is medium is also termed as Sabouraud Liquid Broth Modified or Fluid Sabouraud Medium. This medium facilitates enhanced growth of test organism *Saccharomyces cerevisiae* employed in assay of candicidin, a polyene antibiotic with antifungal activity. Assay is performed by enumerating the blastospores or by analysing the turbidity of the medium.

Turbidimetric antibiotic assay is based on the change or inhibition of growth of a test microorganism in a liquid medium containing a uniform concentration of an antibiotic. After incubation of the test organism in the working dilutions of the antibiotics, the amount of growth is determined by measuring the light transmittance using spectrophotometer. The concentration of antibiotic is determined by comparing amounts of growth obtained with that given by the reference standard solutions. Use of this method is appropriate only when test samples are clear.

COMPOSITION

Ingredients	Gms / Ltr
Peptone	10.000
Dextrose	20.000

PRINCIPLE

Dextrose serves as carbon source and peptone provides essential nutrients and growth promoting factors.

INSTRUCTION FOR USE

- Dissolve 30 grams in 1000 ml purified/distilled water.
- Heat if necessary to dissolve the medium, completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool and dispense as desired.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow coloured homogeneous free flowing powder.
Appearance of prepared medium : Light amber coloured clear solution without any precipitate
pH (at 25°C) : 5.6±0.1

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Serial dilution with	Incubation Temperature	Incubation Period

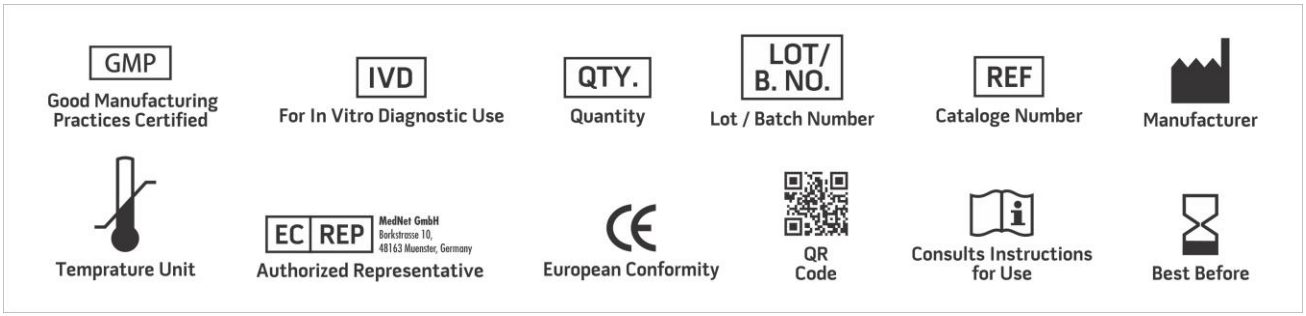
Saccharomyces cerevisiae	9763	50-100	Luxuriant	Candicidin	29-31°C	18-48 Hours

PACKAGING:
In pack size of 500 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
After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES
1. United States Pharmacopoeia / National Formulary 2011, US Pharmacopoeial Convention, Inc.,Rockville, MD.
2. Tests and Methods of Assay of Antibiotics and Antibiotic containing Drugs, FDA, CFR, 1983 Title 21, Part 436, Subpart D, Washington, D.C.: U.S. Government Printing Office, paragraphs 436, 100-436, 106, p. 242-259, (April 1).
3. Grove and Randall, 1955, Assay Methods of Antibiotics, Medical Encyclopaedia, Inc. New York
4. Schmidt and Moyer, 1944. J.Bact., 47:199.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.
***For Lab Use Only**
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