TM 1731 – ANTIBIOTIC ASSAY MEDIUM NO.2 (as per USP)

INTENDED USE
For microbiological assay of antibiotics.

PRODUCT SUMMARY AND EXPLANATION
This medium is commonly used as base agar for microbiological agar diffusion assays for wide variety of antibiotics. Agar diffusion assays can be performed by cylinders, punched-hole or paper disc tests. This medium is identical numerically with the name assigned by Grove and Randall. This medium is prepared according to the specifications detailed in the USP and CFR.
To perform an antibiotic assay the Antibiotic assay medium No.2 is used as Base Agar. This medium should be prepared on the same day as the test. For the cylinder method, a base layer of 21 ml is required. Once the base medium has solidified, Antibiotic assay medium No.1 as seed agar, inoculated with the standardized culture can be overlaid. Even distribution of the layer is important.

COMPOSITION

Ingredients	Gms / Ltr
Peptone	6.000
Yeast extract	3.000
Beef extract	1.500
Agar	15.000

PRINCIPLE
Peptone, yeast and beef extract nitrogenous, vitamins and mineral requirement for the growth of test organisms. This medium provides solidified substratum for growth of organisms and supports the overlayering of soft agar.

INSTRUCTION FOR USE
- Dissolve 25.5 grams in 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.

QUALITY CONTROL SPECIFICATIONS
Appearance of Powder : Cream to yellow coloured homogeneous free flowing powder.
Appearance of prepared medium : Amber coloured slightly opalescent gel forms in Petri plates.
pH (at 25°C) : 6.6±0.1

INTERPRETATION
Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Basal layer	Incubation Temperature	Incubation Period
Micrococcus luteus	10240	50-100	Luxuriant	>=70%	Bacitracin	35-37°C	18-48 Hours

Staphylococcus aureus	9144	50-100	Luxuriant	>=70%	Tylosin	35-37°C	18-48 Hours
Staphylococcus aureus	29737	50-100	Luxuriant	>=70%	Amikacin, Cephalothin, Cephapirin, Cloxacillin, Cycloserine, Chlortetracycline, Demeclocycline, Doxycycline, Kanamycin, Methacycline, Nafcillin, Oxytetracycline, Rolitetracycline, Tetracycline	35-37°C	18-48 Hours
Staphylococcus epidermidis	12228	50-100	Good-luxuriant	>=50%	Novobiocin	35-37°C	18-48 Hours
Klebsiella pneumoniae	10031	50-100	Luxuriant	>=70%	Capreomycin, Streptomycin, Troleandomycin	35-37°C	18-48 Hours
Enterococcus hirae	10541	50-100	Luxuriant	>=70%	Gramicidin, Thiostrepton, Tobramycin	35-37°C	18-48 Hours
Escherichia coli	10536	50-100	Luxuriant	>=70%	Chloramphenicol, Spectinomycin	35-37°C	18-48 Hours

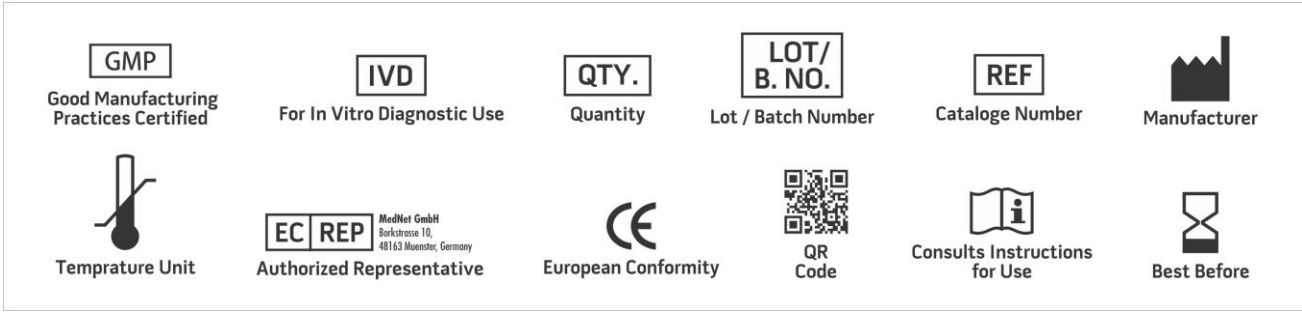
PACKAGING:
In pack size of 500 gm bottles.

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. Grove and Randall, 1955, Assay Methods of Antibiotics Medical Encyclopedia, Inc. New York.1.
2. United States Pharmacopoeia / National Formulary 2011, US Pharmacopoeial Convention, Inc., Rockville, MD.

3. 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).



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

***For Lab Use Only**

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