CM 20126 – ANTIBIOTIC ASSAY MEDIUM NO. 37 (as per USP)

INTENDED USE

For sterility testing of molds and cultivation of various microorganisms.

PRODUCT SUMMARY AND EXPLANATION

Groveand Randall have elucidatedthe antibiotic assays and medias in their comprehensive treatise on antibiotic assays. Antibiotic Assay Medium No. 37 can be used as a general medium for sterility checking of pharmaceutical products and cultivation of fastidious and non-fastidious organisms and is formulated as per CFR and USP. It is also used for the sensitivity testing by the tube dilution method for antimicrobial agents.
Turbidimetric antibiotic assay is based on the change or inhibition of growth of a test microorganims in a liquid medium containing a uniform concentration of an antibiotic. After incubation of the test orgainism 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
Casein enzymic hydrolysate	17.000
Papaic digest of soyabean meal	3.000
Dextrose	2.500
Sodium chloride	5.000
Dipotassium phosphate	2.500

PRINCIPLE

Thecombination of casein enzymic hydrolysate and papaic digest of soyabean meal makes this medium nutritious by providing amino acids and long chain peptides for the growth of microorganisms. Dextrose serves as the carbohydrate source and dipotassium phosphate faclitates buffering in the medium. Sodium chloride maintains the osmotic balance of the medium.

INSTRUCTIONFORUSE

Dissolve 30 grams in 1000 ml distilled water.
Heat if necessary to issolve the medium completely.
Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
Cool to 25°C and store in a cool dark place preferably below 25°C.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium	: Light yellow coloured clear solution without any precipitate.
pH (at 25°C)	: 7.3±0.1

INTERPRETATION

Culturalcharacteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
Escherichia coli	8739	50 -100	Luxuriant	30-35°C	18-48 Hours
Bacillus subtilis	6633	50 -100	Luxuriant	30-35°C	18-48 Hours
Staphylococcus aureus	6538	50 -100	Luxuriant	30-35°C	18-48 Hours
Streptococcus pyogenes	19615	50 -100	Luxuriant	30-35°C	18-48 Hours
Pseudomonas aeruginosa	9027	50 -100	Luxuriant	30-35°C	18-48 Hours
Candida albicans	10231	50 -100	Luxuriant	20-25°C	2-5 days
Candida albicans	2091	50 -100	Luxuriant	20-25°C	2-5 days
Aspergillus brasiliensis	16404	50 -100	Luxuriant	20-25°C	2-5 days

PACKAGING:

Inpacksizeof100 gm and 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.

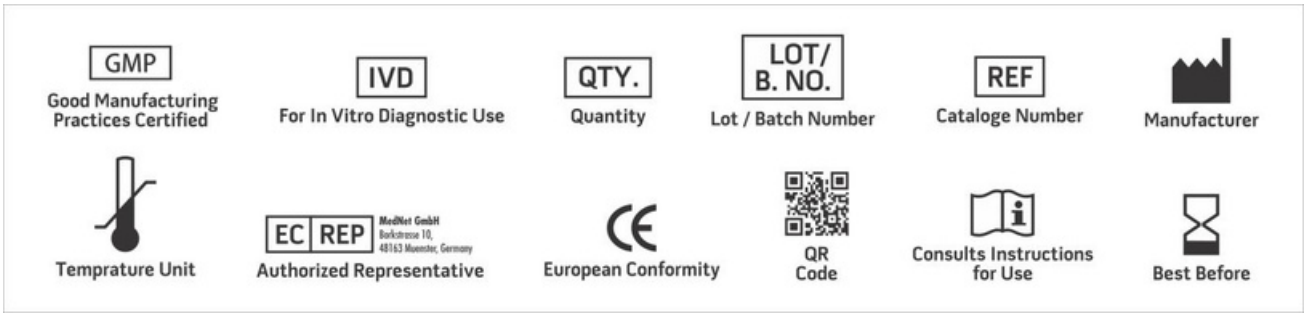
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

Afteruse,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
2. United States Pharmacopoeia 1985, US Pharmacopoeial Convention, Inc, Rockville, MD.
3. Wright and Welch, 1959-60, Antibiotics Ann., 61.



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

*For LabUse Only