CM 20144 – ANTIBIOTIC ASSAY MEDIUM NO. 5 (STREPTOMYCIN ASSAY AGAR W/ YEAST EXTRACT) (as per IP/ USP) (VEG.)

INTENDED USE

For microbiological assay of Streptomycin using Bacillus subtilis.

PRODUCT SUMMARY AND EXPLANATION

Antibiotic VegAssay Medium No.5 (Streptomycin Veg Assay Agar w/Yeast Extract) is prepared by incorporating vegetable peptones in place of animal peptones, making the medium BSE, TSE risks free. It can be used for the same purpose of Antibiotic Assay Medium No.5. Groove and Randall had elucidated the methods to perform these assays. This medium is recommended for assaying Streptomycin by cylinder plate using Bacillus subtilis as test organism. It can be used in the assay of commercial preparations of antibiotics as well as for antibiotics in body fluids, feeds etc. This medium can also be used to prepare the base as well as seed layer in the microbiological assay of antibiotics such as Dihydrostreptomycin, Framycetin, Dactinomycin, Streptomycin and Kanamycin B. The pH of 7.9 provides optimum conditions for Bacillus subtilis. Toperform the antibiotic assay, the Base Agar should be prepared on the same day as the test. For the cylinder method, abase layer of 21 ml is required. Once the base medium has solidified, seed layer inoculated with the standardized test culture can be overlaid. Even distribution of the layer is critical.

COMPOSITION

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

PRINCIPLE

Vegpeptone, Veg extract, yeast extract provides necessary growth nutrients for the test organisms like Bacillus subtilis.

INSTRUCTION FOR USE

Dissolve 25.50 gramsin 1000 ml purified/distilled water.
Heat to boiling to dissolve the medium completely.
Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Advice: Recommended for the Microbiological assay of Dactinomycin, Dihydrostreptomycin, Kanamycin B, Streptomycin, Framycetin.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium	: Medium amber coloured clear to slightly opalescent gel forms in petri plates
pH (at 25°C)	: 7.9±0.2

INTERPRETATION

Culturalcharacteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Antibiotics assayed	Incubation Temperature	Incubation Period
Bacillus subtilis	6633	50-100	Good-luxuriant	>=50%	Dihydrostreptomycin, Framycetin, Kanamycin B	35-37°C	18-24 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.

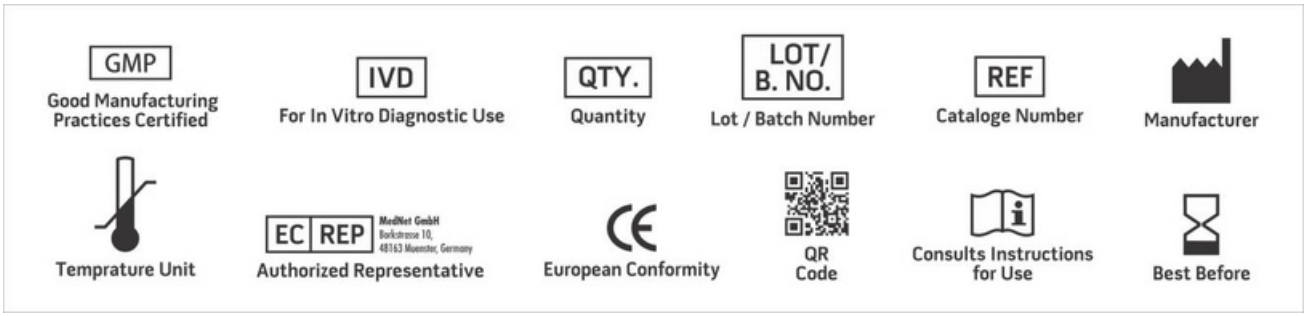
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

1. 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).
2. Grove and Randall, 1955, Assay Methods of Antibiotics Medical Encyclopedia, Inc.New York.
3. Stearn and Steran,J.Bacteriol.1933.26(1):37-55



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

*For LabUse Only