

TM 1967 – ANTIBIOTIC ASSAY MEDIUM E

INTENDED USE

Used in the microbiological assay of Neomycin sulphate and Framycetin sulphate using *Bacillus subtilis* and *Bacillus pumilus*.

PRODUCT SUMMARY AND EXPLANATION

Antibiotic Assay Medium E is widely used as seed agar in the plate assay of Framycetin sulphate and Neomycin sulphate using *Bacillus subtilis* and *Bacillus pumilus* as test organism. This medium is formulated in accordance to British Pharmacopoeia and European Pharmacopoeia.

Freshly prepared plates should be used for antibiotic assays. Test organisms are inoculated in sterile seed agar cooled to 40-45°C and spread evenly over the surface of solidified base agar. Zones of inhibition around the antibiotic are then measured. All conditions in the microbiological assay must be controlled carefully. The use of standard culture media in the test is one of the important steps for good results.

COMPOSITION

Ingredients	Gms / Ltr
Peptone	5.000
Meat extract	3.000
Disodium hydrogen phosphate.12H ₂ O	26.900
Agar	10.000

PRINCIPLE

Peptone and meat extract supplies nutrients essential for microbial growth. Phosphates are incorporated in the medium to provide good buffering action. The low concentration of agar facilitates proper diffusion of antibiotic in the seed agar.

INSTRUCTION FOR USE

- Dissolve 28.67 grams (the equivalent weight of dehydrated medium per litre) 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. Cool to 45-50°C.
- Mix well and pour into sterile Petri plates.

Advice: Recommended for the microbiological assay of Framycetin sulphate and Neomycin sulphate.

QUALITY CONTROL SPECIFICATIONS

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

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	Strain	Inoculum (CFU/ml)	Growth	Recovery	Antibiotics assayed	Incubation Temperature	Incubation Period



<i>Bacillus pumilus</i>	8241 NCTC	50-100	Luxuriant	>=70%	Neomycin sulphate, Framycetin sulphate	35-37°C	18-24 Hours
<i>Bacillus subtilis subsp. spizizenii</i>	6633 ATCC	50-100	Luxuriant	>=70%	Neomycin sulphate, Framycetin sulphate	35-37°C	18-24 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. British Pharmacopoeia, 2020, The Stationery office British Pharmacopoeia
2. European Pharmacopoeia, 2020, European Department, for the Quality of Medicines.
3. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
4. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual Clinical Microbiology, 11th Edition. Vol. 1.

 GMP Good Manufacturing Practices Certified	 IVD For In Vitro Diagnostic Use	 QTY. Quantity	 LOT/ B. NO. Lot / Batch Number	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 EC REP Authorized Representative <small>MedNet GmbH Barkstrasse 10, 48163 Muenster, Germany</small>	 European Conformity	 QR Code	 Consults Instructions for Use	 Best Before

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

***For Lab Use Only**
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