

Antibiotic Assay Medium No. 11 (Neomycin, Erythromycin Assay Agar) Plate (Triple Layer Pack, Gamma-Irradiated)**Intended Use**

Antibiotic Assay Medium No.11 for determining antibiotic potency by microbiological assay techniques as per USP.

Summary

Antibiotic Assay media are used in the performance of antibiotic assays. Grove and Randall have elucidated those antibiotic assays and media in their comprehensive treatise on antibiotic assays. Schmidt and Moyer have reported the use of antibiotic assay medium for the liquid formulation used in the performance of antibiotic assay. These media are recommended by USP and FDA.

Principle

Nutrients and growth factors are supplied by the ingredients like peptone, pancreatic digest of casein, yeast extract and beef extract. Dextrose provides the carbon and energy source. Agar provides excellent medium for antibiotic diffusion and gives well-defined zones of inhibition. Higher pH provides the optimal conditions for activity of antibiotic and also supports the growth of the test organisms. Freshly prepared plates should be used for antibiotic assays. Test organisms are inoculated in sterile seed agar pre-cooled to 40°C-45°C and spread evenly over the surface of solidified base agar. All conditions in the microbiological assay must be controlled carefully.

Formula*

Ingredients	g/L
Peptone	6.0
Tryptone	4.0
Yeast Extract	3.0
Beef Extract	1.5
Dextrose	1.0
Agar	15.0
Final pH (at 25°C)	8.3 ± 0.1

*Adjusted to suit performance parameters.

Additional Material Required

Bacteriological Incubator.

Instructions for use

1. Open the sterile pack and remove Antibiotic Assay Medium No. 11 (Neomycin, Erythromycin Assay Agar) Plate aseptically.
2. Inoculate/streak the plate and incubate in inverted position as per standard procedure.

Reading and interpretation

1. After incubation, observe the microbial growth and count the colonies.
2. Interpretation is assured by user.
3. User is responsible to define the action limits as per standard guidelines and alert limits on the basis of trend analysis & other relevant data.

Quality Control

Appearance: Gel with smooth and even surface without any cracks, bubbles and drying or shrinking of media.

Colour of Medium: Light yellow coloured, very slightly opalescent gel in petriplates.

Quantity of Medium: 29 ± 2 g in 90 mm petriplate.

pH at 25°C ± 2°C: 8.3 ± 0.1

Gamma Irradiation: The above said product was Gamma Irradiated between 23K Gy - 32K Gy.

Growth Promotion Test: Growth promotion is carried out in accordance with the harmonized method of USP/EP/JP and growth is observed after an incubation at 30°C-35°C for 18-24 hours.

Growth Promoting Properties: The test results observed are within the specified temperature and shortest period of time specified in the test, inoculating ≤ 100 cfu of appropriate microorganism.

Growth Promoting

Organism (ATCC)

Kocuria rhizophila Strain PCI 1001 (9341)

Staphylococcus epidermidis strain PCI 1200 (12228)

Growth

Good

Good

Storage and Shelf Life

1. Store between 15°C-25°C to avoid water condensation. Condensation can be prevented by avoiding quick temperature shifts and mechanical stress.
2. Under optimal conditions, the medium has a shelf life of 6 months. Use before expiry mentioned on the label.

Reference

1. Grove and Randall, 1955, Assay Methods of Antibiotics Medical Encyclopedia, Inc, New York.
2. Schmidt and Moyer, 1944; J. Bact, 47:199.
3. United States Pharmacopoeia 2009, US Pharmacopoeial Convention Inc, Rockville, MD
4. 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 pg 242-259 (April 1).
5. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.

205010490100

Product

Antibiotic Assay Medium No. 11 (Neomycin, Erythromycin Assay Agar) Plate

Pack Size

100 Plates

Disclaimer

Information provided is based on our inhouse technical data on file, it is recommended that user should validate at his end for suitable use of the product.
