



Dehydrated Culture Media
Bases / Media Supplements

Technical Information

Antibiotic Assay Medium No. 39

Product Code: DM 2142

Application: - Antibiotic Assay Medium No. 39 is used for the microbiological assay of Neomycin using *Klebsiella pneumoniae* and Tylosin using *Staphylococcus aureus* as the test organism.

Composition**

Ingredients	Gms / Litre
Peptic digest of animal tissue (Peptone)	5.000
Beef extract	1.500
Yeast extract	1.500
Dextrose	1.000
Sodium chloride	3.500
Dipotassium phosphate	3.680
Potassium dihydrogen phosphate	1.320
Final pH (at 25°C)	7.9±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Antibiotic Assay media are used in the performance of day to day antibiotic assays. Grove and Randall have elucidated these antibiotic assays and media in their comprehensive booklet on antibiotic assays ⁽¹⁾. Schmidt and Moyer have reported the use of liquid antibiotic assay medium for the performance of antibiotic assay ⁽²⁾, which is prepared in accordance with the USP ⁽³⁾ and the FDA ⁽⁴⁾ methodology.

Nutrients and growth factors are provided by ingredients like peptone, beef extract and yeast extract. Dextrose is the source of energy. Sodium chloride maintains the osmotic equilibrium whereas the phosphates act as the buffering system.

Methodology

Suspend 17.5 grams of powder media in 1000 ml distilled water. Shake well and heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.





Dehydrated Culture Media
Bases / Media Supplements

Quality Control

Physical Appearance

Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium

Yellow coloured clear solution

Reaction

Reaction of 1.75% w/v aqueous solutions at 25°C. pH : 7.9±0.2

pH Range:- 7.70-8.10

Cultural Response/Characteristics

DM2142: Cultural characteristics observed after an incubation at 35 - 37°C for 18 - 24 hours.

Organism	Inoculum (CFU)	Serial dilution with
<i>Klebsiella pneumonia</i> ATCC 10031	50-100	Neomycin
<i>Staphylococcus aureus</i> ATCC 9144	50-100	Tylosin

Storage and Shelf Life

Dried Media: Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.

Prepared Media: 2-8⁰ in sealable plastic bags for 2-5 days.

Further Reading

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).

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conform solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate
- **Central Drug House Pvt. Ltd.** reserves the right to make changes to specifications and information related to the products at any time.
- Products are not intended for human or animal diagnostic or therapeutic use but for laboratory, research or further manufacturing of diagnostic reagents extra.
- Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.
- Do not use the products if it fails to meet specifications for identity and performance parameters.

