

# **Technical Information**

# Antibiotic Assay Medium No. 8 (Base Agar w/low pH)

#### Product Code: DM 1041

Application: - Antibiotic Assay Medium No. 8 is used in the microbiological assay of Oxytetracycline, Tetracycline and Vancomycin.

Composition**				
Ingredients	Gms / Litre			
Peptic digest of animal tissue (Peptone)	6.000			
Yeast extract	3.000			
Beef extract	1.500			
Agar	15.000			
Final pH ( at 25°C)	5.9±0.2			
**Formula adjusted standardized to suit parforman				

\*\*Formula adjusted, standardized to suit performance parameters

### Principle & Interpretation

Antibiotic Assay Media are used for antibiotic assays. Grove and Randall have elucidated antibiotic assays and media in their comprehensive treatise on antibiotic assays <sup>(1)</sup>. Schmidt and Moyer have reported the use of antibiotic assay medium for the liquid formulation used in the performance of antibiotic assay <sup>(2)</sup>. These media are prepared as per the specifications detailed in the USP <sup>(3)</sup> and FDA <sup>(4)</sup>.

Beef extract, yeast extract and peptic digest of animal tissue serves as a source of nutrients and growth factors.

### Methodology

Suspend 25.5 grams of powder media in 1000 ml distilled water. Shake well & heat to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Advice: Recommended for the microbiological assay of Oxytetracycline, Tetracycline and Vancomycin.

# **Quality Control**

Physical Appearance Cream to yellow homogeneous free flowing powder

**Gelling** Firm, comparable with 1.5% agar gel.

Colour and Clarity of prepared medium Light amber coloured opalescent gel forms in Petri plates

**Reaction** Reaction of 2.55% w/v aqueous solution at 25°C. pH : 5.9±0.2

pH range 5.70-6.10

**Cultural Response/ characteristics** DM 1041: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.





Dehydrated Culture Media Bases / Media Supplements

Organism	lnoculum (CFU)	Growth	Recovery	antibiotics assayed
Bacillus subtilis ATCC 6633	50-100	luxuriant	>=70%	Mitomycin, Vancomycin
Bacillus cereus var mycoides ATCC 11778	50-100	luxuriant	>=70%	Oxytetracyclin Tetracycline

# 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: 2-8° 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, p. 242-259, (April 1).

#### **Disclaimer**:

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