



## Antibiotic Assay Medium No.35

M798

### Intended Use:

Recommended for microbiological assay of Bleomycin using *Mycobacterium smegmatis*.

### Composition\*\*

Ingredients	Gms / Litre
Peptone	10.000
HM peptone B #	10.000
Sodium chloride	3.000
Agar	17.000
Final pH ( at 25°C)	7.0±0.2

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

# Equivalent to Beef extract

### Directions

Suspend 40 grams in 1000 ml purified / distilled water containing 10 ml glycerol. 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 Bleomycin

### Principle And Interpretation

This medium is formulated in accordance to CFR (1). This medium is employed widely as base agar for agar diffusion assay of Bleomycin using *Mycobacterium smegmatis*. The nutrients essential for growth of test organism is provided by Peptone and HM peptone B in this medium. Agar provides excellent solid substratum for support and overlaying of seed agar, for the assay of Bleomycin. Addition of glycerol is important for provision of carbon to the test organism.

To perform the antibiotic assay the Base Agar should be prepared on the same day as the test. For the cylinder method, a base layer of 21 ml is required. Once the base medium has solidified, seed layer inoculated with the standardized culture can be overlaid. Even distribution of the layer is important.

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### Limitations :

1. Freshly prepared medium plates must be used or it may result in erroneous results.

### Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

## Quality Control

### Appearance

Cream to yellow homogeneous free flowing powder

### Gelling

Firm, comparable with 1.7% agar gel.

### Colour and Clarity of prepared medium

Medium amber coloured clear to slightly opalescent gel forms in Petri plates

### Reaction

Reaction of 4.0% w/v aqueous solution containing 1% glycerol at 25°C. pH : 7.0±0.2

### pH

6.80-7.20

### Cultural Response

Cultural characteristics observed after an incubation at 36-37.5 for 18-48 hours.

Organism	Inoculum (CFU)	Growth	Recovery	Antibiotics assayed
<i>Mycobacterium smegmatis</i> ATCC 607	50-100	luxuriant	>=50%	Bleomycin

## Reference

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).

### Disclaimer :

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