



## Antibiotic assay medium No. 36

MM1666

Antibiotic assay medium No. 36 is used for inoculum preparation of *Mycobacterium smegmatis* for the assay of Bleomycin in accordance with Indian Pharmacopoeia.

### Composition\*\*

Ingredients	Gms / Litre
Tryptone #	15.000
Soya peptone # #	5.000
Sodium chloride	5.000
Agar	15.000
pH after sterilization	7.3±0.1

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

# Pancreatic digest of casein

# # Papaic digest of soyabean meal

### Directions

Suspend 40 grams in 1000 ml purified/ distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C. Mix well and pour into sterile Petri plates.

### Principle And Interpretation

Grove and Randall have elucidated the antibiotic assays and medias in their comprehensive treatise on antibiotic assays (1). Antibiotic assay Medium No. 36 is recommended for preparation of inoculum of *Mycobacterium smegmatis* for the assay of Bleomycin. This medium is also used for the cultivation of a wide variety of microorganisms and sterility testing of pharmaceutical preparations. (3). This medium is formulated in accordance with Indian Pharmacopoeia (2).

The combination of Tryptone and soya peptone makes this medium nutritious by providing amino acids and long chain peptides for the growth of microorganisms. Sodium chloride maintains the osmotic balance of the medium

### Quality Control

#### Appearance

Cream to yellow homogeneous free flowing powder

#### Gelling

Firm, comparable with 1.5% Agar gel

#### Colour and Clarity of prepared medium

Light yellow coloured clear to slightly opalescent gel forms in Petri plates

#### pH

7.20-7.40

#### Cultural Response

MM1666: Cultural characteristics observed after an incubation at 36 -37.5°C for 18-48 hours.

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

### Storage and Shelf Life

Store below 30°C in tightly closed container and use freshly prepared medium. Use before expiry date on the label.

### Reference

Please refer disclaimer Overleaf.

1. Grove and Randall, 1955, Assay Methods of Antibiotics, Medical Encyclopedia, Inc. New York
2. Indian Pharmacopoeia 2010, Ministry of Health and Family welfare, Government of India, New Delhi.
3. Wright and Welch, 1959-60, Antibiotics Ann., 61.

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