



## Antibiotic Assay Medium No.34

MU797

Antibiotic Assay Medium No.34 is used as a suspending medium for *Mycobacterium smegmatis* ATCC 607 which is used as a test organism in the microbiological assay of Bleomycin in accordance with United States Pharmacopoeia.

### Composition\*\*

Ingredients	Gms / Litre
Peptone	10.000
Beef extract	10.000
Sodium chloride	3.000
pH after sterilization	7.0±0.1

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

### Directions

Suspend 23 grams in 1000 ml Water R/purified/distilled water containing 10 grams of glycerol. Heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool and dispense as desired.

*Advice : Recommended for the microbiological assay of Bleomycin .*

### Principle And Interpretation

This medium is formulated in accordance with USP and CFR (1,2). This medium is generally employed to prepare *Mycobacterium smegmatis* suspension required for assaying antineoplastic agent like Bleomycin.

This medium provides optimal conditions to maintain the viability of the test organism *Mycobacterium smegmatis* . Peptone and beef extract in the medium provides nutrients essential for growth, while addition of glycerol provides slow and continuous supply of carbon and energy source. The osmotic equilibrium for integrity of cell and its viability is maintained in presence of sodium chloride present in this medium.

### Quality Control

#### Appearance

Cream to yellow coloured homogeneous free flowing powder

#### Colour and Clarity of prepared medium

Yellow coloured clear solution without any precipitate

#### pH

6.90-7.10

#### Cultural Response

MU797: Cultural characteristics observed after an incubation at 35-37.5°C for 18-48 hours .

Organism	Inoculum (CFU)	Growth	Serial dilution with
<i>Mycobacterium smegmatis</i> ATCC 607	50-100	luxuriant	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

1. United States Pharmacopoeia 2011, US Pharmacopoeial Convention, Inc., Rockville, MD.
2. 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).

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