

TM 1969 – ANTIBIOTIC ASSAY MEDIUM G

INTENDED USE

For the microbiological assay of Bleomycin sulphate using Mycobacterium smegmatis.

PRODUCT SUMMARY AND EXPLANATION

This medium is formulated in accordance to European and British Pharmacopoeia. This medium is employed widely as base agar for agar diffusion assay of Bleomycin using *Mycobacterium smegmatis*. It is also used for preparing the inoculum of *Mycobacterim smegmatis* for assay.

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.

COMPOSITION

Ingredients	Gms / Ltr		
Peptone	10.000		
Meat extract	10.000		
Sodium chloride	3.000		
Agar	15.000		

PRINCIPLE

The nutrients essential for growth of test organism is provided by Peptone and meat extract in this medium. Agar provides excellent solid substratum for support and over layering of seed agar, for the assay of Bleomycin. Addition of glycerol is important for provision of carbon to the test organism.

INSTRUCTION FOR USE

- Dissolve 38 grams in 1000 ml purified/distilled water containing 10ml glycerol.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. Cool to 45-50°C.
- Mix well and pour into sterile Petri plates or as desired.

Advice: Recommended for the microbiological assay of Bleomycin sulphate

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.

Appearance of prepared medium : Light yellow coloured clear to slightly opalescent gel forms in Petri plates.

pH (at 25°C) : 7.0±0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Antiobiotics assayed	Incubation Temperature	Incubation Period
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Mycobacterium smegmatis	607	50-100	Luxuriant	>=70%	Bleomycin sulphate	35-37°C	18-48 Hours
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PACKAGING:

In pack size of 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

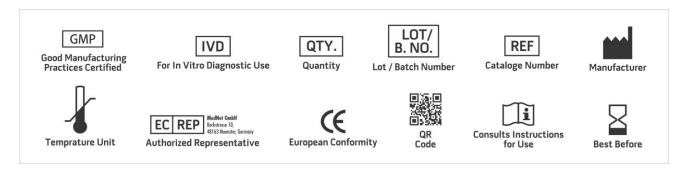
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

- 1. British Pharmacopoeia, 2016, The Staionery Office, British Pharmacopoeia
- 2. European Pharmacopoeia, 2017, European Department, for the Quality of Medicines.
- 3. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2 nd Edition.
- 4. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual Clinical Microbiology, 11th Edition. Vol. 1.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices. *For Lab Use Only

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