

## TM 2004 – BENNET'S AGAR

### INTENDED USE

For the sporulation and cultivation of *Nocardia* and *Streptomyces* species.

### PRODUCT SUMMARY AND EXPLANATION

*Nocardia* are found worldwide in soil that is rich with organic matter. Most *Nocardia* infections are acquired by inhalation of the bacteria or through traumatic introduction. *Nocardia* are opportunistic pathogens, causing disease primarily among the young, the elderly, and those who are immunocompromised. *Nocardia* typically induce a pyogenic response with abscess formation. *Nocardia* cause disease in every region of the body. However, the regions of the body most affected are lungs, skin, eyes, and muscle. *Streptomyces* are found predominantly in soil and in decaying vegetation, and most produce spores. *Streptomyces* are most commonly limited to causing actinomycotic mycetoma. Areas of the body more prone to formation of mycetomas are those that are frequently traumatized or that come into contact with soil. Developments in cultivation and selective isolation procedures have yielded information on the occurrence, distribution, number and activity of *Nocardiaceae* family members. Bennets Agar has been recommended by Jones for cultivation of *Nocardia*.

### COMPOSITION

Ingredients	Gms / Ltr
Yeast extract	1.000
Beef extract	1.000
Tryptone	2.000
Dextrose (GLucose)	10.000
Agar	15.000

### PRINCIPLE

The medium contains nitrogenous and carbonaceous nutrients supplied by yeast extract, beef extract and Tryptone. They also serve as sources of long chain amino acids, vitamins and essential growth factors. Dextrose is an energy source.

### INSTRUCTION FOR USE

- Dissolve 29.0 grams in 1000 ml purified / distilled water.
- 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.

### QUALITY CONTROL SPECIFICATIONS

<b>Appearance of Powder</b>	: Cream to yellow homogeneous free flowing powder.
<b>Appearance of prepared medium</b>	: Light yellow coloured, clear to slightly opalescent gel forms in Petri plates.
<b>pH (at 25°C)</b>	: 7.3±0.2

### INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
<i>Streptomyces griseus</i>	10137	50-100	Luxuriant	≥70%	25-30°C	24-48 Hours
<i>Streptomyces lavendulae</i>	8664	50-100	Luxuriant	≥70%	25-30°C	24-48 Hours

#### 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

- Goodfellow M. and A.G. O'Donnell, 1989, In: S. Baumberg, M. Rodes and I. Hunter (Ed) Microbial Products: New Approaches. Cambridge University Press, Cambridge. 343-383.
- Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.
- Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock, D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
- Jones K.L., 1949, J. Bacteriol. 57:141-145.
- Mahgoub E.S., 1990, Principles and Practice of Infectious Disease, 3rd Ed., Churchill Livingstone, New York.
- Murray P. R., Baron E. J., Jorgensen J. H, Pfaller M. A., Tenover F. C., Tenover H. C., (Eds.), 8th Ed., 2003, Manual of Clinical Microbiology, ASM, Washington, D.C.

 Good Manufacturing Practices Certified	 For In Vitro Diagnostic Use	 Quantity	 Lot / Batch Number	 Catalogue Number	 Manufacturer
 Temperature Unit	 Authorized Representative MedNet GmbH Barkstrasse 10, 49163 Moenster, Germany	 European Conformity	 QR Code	 Consults Instructions for Use	 Best Before

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

**\*For Lab Use Only**  
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