

TM 1209 - KENKNIGHT MUNAIER'S MEDIUM

INTENDED USE

For isolation of *Actinomyces* species from soil.

PRODUCT SUMMARY AND EXPLANATION

The genera *Actinomyces*, belong to the fermentative *Actinomycetes* group. They cause a number of diseases, notably, *actinomycosis* and some opportunistic diseases. *Actinomycetes* have some unique properties that may be related to their ability to survive and grow in the soils. They are prolific producers of extracellular enzymes that degrade the complex macromolecule substrates commonly found in soils. The desiccation resistance properties of spore formers such as *Streptomyces* are likely to be important to survive in soils that are often dry. Kenknight and Munaier's medium is used for isolating *Actinomyces* species from soil samples.

COMPOSITION

Ingredients	Gms / Ltr
Dextrose	1.000
Potassium dihydrogen phosphate	0.100
Sodium nitrate	0.100
Potassium chloride	0.100
Magnesium sulphate	0.100
Agar	15.000

PRINCIPLE

Dextrose serves as carbohydrate source for the growth of *Actinomyces*. Sodium nitrate serves as the source of nitrogen. Various salts in the medium not only buffer the medium but also provide essential ions required for the growth of *Actinomyces*.

INSTRUCTION FOR USE

- Dissolve 16.40 grams in 1000 ml 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

Appearance of Powder : Light yellow to brownish yellow homogeneous free flowing powder.
Appearance of prepared medium : Light amber coloured, clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C) : 7.4±0.2

INTERPRETATION

Cultural characteristics observed after incubation.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
<i>Actinomyces israelii</i>	10049	50-100	Luxuriant	>=70%	25-30°C	7 Days
<i>Streptomyces albus</i>	3004	50-100	Luxuriant	>=70%	25-30°C	7 Days

PACKAGING:

In pack size of 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers below 25°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

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- MacCartney A. J., 1989, FEMS Microbiol. Rev., 46:145-163
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 GMP Good Manufacturing Practices Certified	 Best Before	 QTY. Quantity	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 LOT/ B. NO. Lot / Batch Number	 Consults Instructions for Use	 QR Code	

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

***For Lab Use Only**
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