TM 2075 – FEELEY GORMAN BROTH (F.G. BROTH)

INTENDED USE

For the cultivation of *Legionella* species.

PRODUCT SUMMARY AND EXPLANATION

Feeley et al formulated this medium, which is used as nonselective enrichment medium for isolation of *Legionella* species. *Legionella* is a gram-negative bacterium, including species that cause legionellosis or Legionnaires' disease, most notably *L. pneumophilia*. *Legionella* species are the causative agent of the human Legionnaires' disease and the lesser form, Pontiac fever. *Legionella* transmission occurs via aerosols- inhalation of mist droplets containing the bacteria. Common sources include cooling towers, domestic hot-water systems, fountains, and similar disseminators that tap into a public water supply. Natural sources of *Legionella* include freshwater ponds and creeks. Person-to-person transmission of *Legionella* has not been demonstrated.

Legionella are nutritionally fastidious and require L-cysteine and iron salts for their growth, which are provided in the medium. *Legionella* species are highly pathogenic microorganisms. Certain safety precautions must be taken when handling *Legionella* cultures.

COMPOSITION

Ingredients	Gms / Ltr
Acicase	17.500
Beef extract	3.000
Starch	1.500
L-Cysteine hydrochloride	0.400
Ferric pyrophosphate, soluble	0.250

PRINCIPLE

The medium consists of Acicase, Beef extract, L-cysteine hydrochloride and ferric pyrophosphate act as sources of nutrients. Incubation should be carried out in the presence of 2.5% carbon dioxide but if it exceeds the limit, *Legionella* growth is inhibited due to formation of acidic condition. *Legionella* species can be identified by their characteristic fluorescence in presence of UV light. Since Legionella disease is primarily a pulmonary infection, prevention and containment of aerosols is essential.

INSTRUCTION FOR USE

- Dissolve 22.65 grams in 1000 ml purified / distilled water.
- Heat if necessary 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 dispense into sterile tubes.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium : Yellow coloured, clear to slightly opalescent solution in tubes.
pH (at 25°C) : 6.9 ± 0.2

INTERPRETATION

Cultural characteristics observed in presence of 2.5% Carbon dioxide (CO_2) after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Fluorescence (under 366nm)	Incubation Temperature	Incubation Period
Legionella bozemanni	33217	50-100	Good- luxuriant	Blue-white	35-37°C	4 Days
Legionella micdadei	33218	50-100	Good- luxuriant	None	35-37°C	4 Days
Legionella pneumophila	33153	50-100	Good- luxuriant	Bright yellow	35-37°C	4 Days

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. Feeley J. C. et al, 1978, J. Clin. Microbiol., 8(3): 320.
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4. Herbert G. A. et al, 1959, Ann. Intern, Med., 92(1):45.
5. Herbert G. A. et al, 1980, Ann. Intern. Med., 92(1):53.
6. MacFaddin J. F., Vol. I, 1985, Media for Isolation Cultivation-Identification-Maintenance of Medical Bacteria, Williams and Wilkins, Baltimore/ London.
7. Ryan K. J., Ray C. G. (Eds.), 2004, Sherris Medical Microbiology, 4th Edition, McGraw Hill.
8. Winn, W. C. Jr. ,1996, Legionella (In: Baron's Medical Microbiology, Barron, S. et al, (Eds.), 4th Edition, University of Texas Medical Branch.

GMP	Good Manufacturing Practices Certified
IVD	For In Vitro Diagnostic Use
QTY.	Quantity
LOT/ B. NO.	Lot / Batch Number
REF	Catalogue Number
	Manufacturer
	Temprature Unit
EC REP MedNet GmbH Borkstrasse 10, 48163 Muenster, Germany	Authorized Representative
CE	European Conformity
	QR Code
i	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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