94423 Legionella Enrichment Broth Base

Legionella Enrichment Broth Base with addition of supplements is used for the enrichment of *Legionella* species.

Composition:

Ingredients	Grams/Litre
Yeast extract 5 g/L	5.0
Proteose peptone 15 g/L	15.0
Liver extract 2.5 g/L	2.5
Sodium chloride 5 g/L	5.0
Final pH 6.9 +/- 0.2 (at 25°C)	

Store prepared media below 8°C, protected from direct light. Store dehydrated powder, in a dry place, in
tightly-sealed containers at 2-25°C.

Appearance: Faint yellow, faint beige and faint brown colored, homogeneous, free flowing powder.

Color and Clarity: Light yellow to yellow and light brown-yellow to brown-yellow colored, clear to slightly opalescent.

Directions:
Suspend 13.75 grams in 500 ml distilled water. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Do not heat prior to sterilization. Cool to 50°C and aseptically add 1 vial of Legionella Growth Supplement Part A and Part B (Twin Pack, Cat. No. 42981).

42981 Legionella Growth Supplement (Twin Pack)

Composition (sufficient for 500 ml medium):

Part A:	[per vial]	Part B:	[per vial]
L-Cysteine hydrochloride	200.0 mg	Ferric pyrophosphate, soluble	125.0 mg
		Sodium selenite	5.0 mg
		Distilled water	5.0 ml

Principle and Interpretation:
Legionella is a gram-negative bacterium and is the causative agent of Legionnaires disease. Natural sources of *Legionella* are fresh water ponds and creeks. Transmission to humans takes place via inhalation of aerosols from cooling towers, hot water systems or fountains containing the bacteria. Legionella Enrichment Broth is recommended for enrichment of Legionella (1). Yeast extract, liver extract and proteose peptone in Legionella Enrichment Broth Base provide necessary nitrogenous nutrients for better recovery of *Legionella*. Sodium chloride helps to maintain osmotic balance. *Legionella* species absolutely need L-Cysteine (present in the supplement) to growth it is a reducing agent and act also as source of sulphur containing amino acid. Ferric pyrophosphate present in the supplement serves as a source of iron ions. Adding 50 ml of sterile defibrinated horse blood can further enrich this medium.

Cultural characteristics observed with added Legionella Growth Supplement (Cat. No. 42981) after incubation at 35-37°C for 48-72 hours.

Organisms (ATCC)	Growth
*Legionella dumoffii (*33343*)*	+++
*Legionella pneumophila (*33153*)*	+++

References:

1. J.G. Collee, J.P. Duguid, A.G. Fraser, B.P. Marmion, (Eds.) Mackie and McCartney, Practical Medical Microbiology, 13th Edition, Churchill Livingstone (1989)

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.