Legionella Acid Buffer

Ready to use Sterile Acid-buffered solution for *Legionella* samples according to ISO 11731

Filtration, Treatment	Sterile Filtered
Product Code	LAB-001-500ML
Shelf Life	36 months from DOM
Storage Temperature	Room Temperature (8°C – 25°C). Once opened keep in dark and use it up to four weeks
Shipping Temperature	Ambient

QC Specifications

Physical and Chemical Analysis	**Method**	**Specifications**	**Units**
Appearance	Visual	Clear colorless liquid	n/a
pH at RT	Electronic pH Meter	2.0 - 2.4	n/a
Osmolality	Osmometer	Test and report	mOsm/kg
Sterility			
Aerobic Bacteria	EP 2.6.1	Not detected	n/a
Anaerobic Bacteria	EP 2.6.1	Not detected	n/a
Fungi (Yeast & Mold)	EP 2.6.1	Not detected	n/a
Mycoplasma	qPCR	Not detected	n/a

GENERAL INFORMATION/FORMULATION

Legionella is a major cause of both pneumonia and an acute self-limiting febrile disease called Pontiac Fever. A standard procedure for the isolation, culture, and identification of *Legionella* has been detailed in ISO 11731. Legionella Acid Buffer is a reagent commonly used according to ISO 11731 for microbiological testing, particularly in the selective isolation of *Legionella* species, which are pathogenic bacteria responsible for Legionnaires' disease. The buffer facilitates *Legionella* isolation through below mechanisms.

- **Selective Inhibition**: The acidic pH of the buffer (usually around 2.2) helps suppress the growth of competing microorganisms that cannot tolerate such conditions, while *Legionella* species, which can withstand acidic environments, are unaffected.
- **Diagnostic Utility**: The acid treatment is typically applied to clinical or environmental samples before culturing on specialized media like Buffered Charcoal Yeast Extract (BCYE) agar to enhance the recovery of *Legionella*.

Legionella Acid Buffer is particularly useful in diagnostic laboratories during the process of detecting and diagnosing infections caused by *Legionella* from water samples, lung tissue, or respiratory secretions.

Important information:

This solution is ready to use sterile product manufactured to be used for *Legionella* detection according to the specifications of ISO 11731, and no further supplements are needed.

INSTRUCTION FOR USE

- **Direct treating:** Mix well 1 part sample to 9 parts of Legionella Acid Buffer. Mix well and leave it for 5+/- 0.5 minutes.
- **Filter Treating**: Transfer 30 mL of acid solution onto the membrane filter. Leave it for 5 +/- 0.5 minutes and remove the solution by filtration.
- After the acid treatment, neutralize the pH by diluting the mixture with a neutralizing buffer (e.g., Serana`s Product code: *PBS-001*) or sterile water (e.g., e.g., Serana`s Product code:BWL-001) , if required, as per your laboratory's protocol.
- Inoculate BCYE agar plates with treated sample material based on your lab protocols.

PRECAUTIONS AND DISCLAIMER

- Legionella Acid Buffer is highly acidic. Handle with care and wear appropriate personal protective equipment (PPE), including gloves, a lab coat, and eye protection.
- Use the buffer in a well-ventilated area or fume hood to avoid inhaling fumes.
- Dispose of the used buffer and contaminated materials following local regulations for hazardous chemical waste.
- Autoclave any biohazardous waste before disposal to ensure the inactivation of pathogens, including *Legionella*.
- The solution is not intended for therapeutic use.
- Each laboratory is obliged to perform representative tests according to valid legal regulations and in its own environment to ensure that the medium is suitable for this purpose before it can be used in routine diagnostics.
- Do not use if a visible precipitate is observed in the medium.
- Do not use this medium beyond the expiration date indicated on the product label.