Litmus Milk Broth

Medium used for the identification and determination of microorganisms on the basis of the metabolic reaction in milk and the maintenance of lactic acid bacteria.

• CONTENTS (Liter)

Skim Milk Powder	100.0 g
Sodium Sulfite	0.5 g

Final pH = 6.8 ± 0.2 at 25°C

• PROCEDURE

Suspend 100.5 G of powder in 1 L of distilled or deionized water. Heat to boiling until completely dissolved. Sterilize by autoclave at 121°C for 5 minutes. DO NOT OVERHEAT. Cool to 45 - 50°C in water bath. Aseptically add 10 mL of Litmus supplement (MB-L0790). Mix well. Pour into tubes.

Litmus supplement

1 vial contents (each vial is sufficient for 5 L of medium)

Litmus	2.5 g

• INTERPRETATION

Litmus Milk Broth is a medium used for the identification and determination of microorganisms on the basis of the metabolic reaction in milk and the maintenance of lactic acid bacteria. Skim milk powder provides casein, lactalbumin, lactoglobulin and lactose. Litmus is the pH indicator and also serves as oxidation-reduction indicator.

• TECHNIC

Inoculate fresh cultured colonies using a sterile loop to the medium. Mix well and loosen the cap. For anaerobes, incubate anaerobically, or overlay the medium surface with 1 mL of sterile mineral oil and tighten the cap immediately after inoculation. Incubate at 35 ± 2°C for 7 days up to 14 days under aerobic condition. Observe reactions at various intervals during the incubation process. Refer appropriate references for recommended test procedure.

*The action of bacteria on milk : acid reaction (pink), alkaline reaction (blue), clot or curd formation (casein coagulation), peptonization (clearing), reduction of litmus (white), gas production (bubbles in the medium or acid clot torn by gas bubbles-stormy fermentation), no reaction (no change, negative).

• QUALITY CONTROL FOR USE

Dehydrated medium
Appearance: free-flowing, homogeneous
Color: off white
Prepared medium
Appearance: opaque
Color: purple-gray
Incubation conditions: 35 ± 2°C / for 7 days up to 14 days under aerobic condition / loosen the cap
(For anaerobes, incubate anaerobically, or overlay 1 mL of sterile mineral oil and tighten the cap)

Microorganism	ATCC	Growth	Characteristics
Clostridium perfringens	13124	good	acid clot (pink), stormy fermentation (gas)
Enterococcus faecalis	29212	good	acid, reduction (white)
Lactobacillus acidophilus	4356	good	acid clot (pink)
Pseudomonas aeruginosa	27853	good	peptonization (clearing)

• STORE

The powder is very hygroscopic. Store the powder at room temperature, in a dry environment, in its original container tightly closed and use it before the expiry date on the label. Store prepared medium at 2 - 8°C.

• REFERENCES

1. MacFaddin, J.D. (1985). Media for isolation- cultivation- identification- maintenance medical bacteria, vol 1, p. 275-284, Williams & Wilkins, Baltimore, MD.

• PACKAGE

Cat. No : MB-L1318 Litmus Milk Broth	500 G