

XLT4 Agar



Medium used for the isolation and cultivation of non-typhi Salmonella.

*Equally use with MFDS (MB-X1092K).

• CONTENTS (Liter)

Proteose Peptone No.3	1.6 g
Yeast Extract	3.0 g
L-Lysine	5.0 g
Xylose	3.75 g
Lactose	7.5 g
Saccharose	7.5 g
Ferric Ammonium Citrate	0.8 g
Sodium Thiosulfate	6.8 g
Sodium Chloride	5.0 g
Phenol Red	0.08 g
Agar	18.0 g

Final pH = 7.4 ± 0.2 at 25°C

• PROCEDURE

Suspend 59.03 G of powder in 1 L of distilled or deionized water. Add 2 vials of XLT 4 supplement (MB-X1871). Heat to boiling until completely dissolved. Avoid overheating. DO NOT AUTOCLAVE. Cool to 45 - 50°C in water bath. Pour into petri dishes.

XLT 4 supplement

1 vial contents (each vial is sufficient for 500 mL of medium)

Tergitol 4	2.3 mL
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• INTERPRETATION

XLT4 Agar is a medium used for the isolation and cultivation of non-typhi Salmonella. Proteose peptone No.3 is a source of carbon, nitrogen and essential nutrients. Yeast extract provides vitamins. Lysine is the substrate for use in detecting the enzymes, lysine decarboxylase and lysine deaminase. Xylose, lactose and saccharose are sources of fermentable carbohydrates. Ferric ammonium citrate and sodium thiosulfate are components of H₂S indicator system. Sodium chloride provides osmotic balance. Phenol red is a pH indicator. Agar is the solidifying agent.

• TECHNIC

Inoculate the specimen using a sterile loop to the medium. Incubate at $35 \pm 2^\circ\text{C}$ for 18 - 48 hours. Refer appropriate references for recommended test procedure.

• QUALITY CONTROL FOR USE

Dehydrated medium

Appearance: free-flowing, homogeneous

Color: pink

Prepared medium

Appearance: clear

Color: red

Incubation conditions: $35 \pm 2^{\circ}\text{C}$ / 18 - 48 hours

Microorganism	ATCC	Inoculum CFU	Growth	Characteristics
<i>Salmonella typhimurium</i>	14028	50-100	good	red colonies with black centers
<i>Enterococcus faecalis</i>	29212	$\geq 10^3$	Inhibited	-
<i>Staphylococcus aureus</i>	25923	$\geq 10^3$	inhibited	-

• 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 $2 - 8^{\circ}\text{C}$.

• REFERENCES

1. Miller, R.G., C.R. Tate. (1990). XLT4: A highly selective plating medium for the isolation of Salmonella. The Maryland Poultryman April: 2-7.
2. Miller, R.G., C.R. Tate, E.T. Mallison, and J.A. Schemer. (1991). Xylose- Lysine-Tergito I 4: An improved selective agar medium for the isolation of Salmonella. Poultry Science 70: 2429-2432.

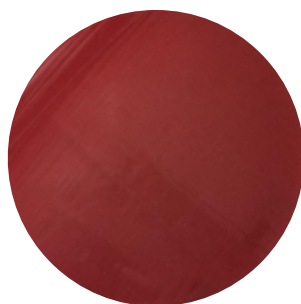
• PACKAGE

Cat. No : MB-X1092 XLT4 Agar	500 G
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• MICROBIAL CULTURE IMAGES



Salmonella
typhimurium
ATCC 14028



Enterococcus
faecalis
ATCC 29212



Staphylococcus
aureus
ATCC 25923

Incubation conditions : $35 \pm 2^{\circ}\text{C}$ / 18 - 48 hours