

XLT4 Agar



Medium used for the isolation of *non-typhi Salmonella*.

*Equally use with MFDS(MB-X1092K) and QIA (MB-X1092Q).

• 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. Dispense in petri dishes.

XLT 4 supplement

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

7-ethyl-2-methyl-4-undecanol Hydrogen Sulphate, Sodium Salt 2.3 mL

• INTERPRETATION

XLT4 Agar is a medium used for the isolation of *non-typhi Salmonella*. Proteose peptone No.3 is a source of carbon, nitrogen and essential nutrients. Yeast extract provides vitamins. Xylose, lactose and saccharose are sources of fermentable carbohydrates. Sodium thiosulfate and ferric ammonium citrate 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 plates with spreading the specimen on surface of the medium using a sterile loop. Incubate at 35 ± 2 °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 with no precipitate.

Color: red.

Incubation conditions: 35 ± 2 °C / 18 - 48 hours

Microorganism	ATCC	Inoculum CFU	Growth	Characteristics
<i>Salmonella typhimurium</i>	14028	50-100	good	yellow to red colonies with black centers
<i>Escherichia coli</i>	25922	$\geq 10^3$	partially inhibited	yellow colonies
<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 or until signs of deterioration or contamination are evident. Store prepared medium at 2-8°C.

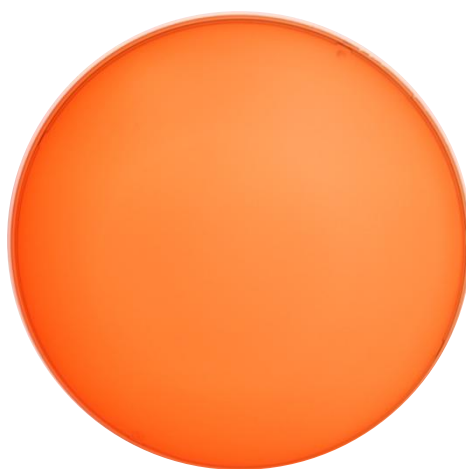
• REFERENCES

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. Scherer. (1991). Xylose- Lysine-Tergito I 4: An improved selective agar medium for the isolation of Salmonella. Poultry Science 70: 2429-2432.

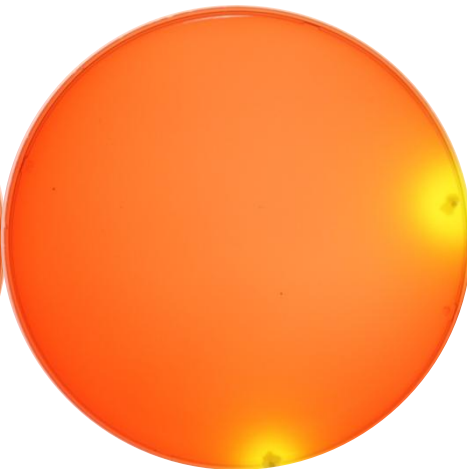
• PACKAGE

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



None



Escherichia coli
ATCC 25922
(partially inhibited)



Salmonella typhimurium
ATCC 14028

Incubation conditions : 35 ± 1 °C 18-24h