

XLT4 AGAR BASE XLT4 SUPPLEMENT

Selective and differential medium for the isolation of non-typhi *Salmonella* in foodstuffs

TYPICAL FORMULA (g/l)

XLT4 Agar Base (g/l)

Peptone	1.60
Yeast extract	3.00
L-lysine	5.00
Xylose	3.75
Lactose	7.50
Sucrose	7.50
Fe-Ammonium citrate	0.80
Sodium thiosulfate	6.80
Sodium chloride	5.00
Phenol red	0.08
Agar	17.00

XLT4 Supplement (flask contents)

Tergitol 4 100 ml
(Niaproof 4/Sodium tetradecilsulfate)

DIRECTIONS

Suspend 58 g in 1000 ml of cold distilled water, add 4.6 ml of XLT4 Supplement (Tergitol 4), REF 4240097. Heat to boiling with frequent agitation, cool to 50°C and pour into sterile Petri dishes. Do not overheat or autoclave. Do not leave the medium more than 45 minutes into the waterbatch. Final pH 7.4 ± 0.2

DESCRIPTION

XLT4 is a selective and differential medium for the isolation of non typhi *Salmonella* spp. from foodstuffs. Differentiation of Gram-negative enteric bacteria is achieved on the basis of xylose fermentation, lysine decarboxylation and the production of hydrogen sulphide from the sodium thiosulphate.

The sodium desoxycholate and Tergitol 4 inhibit the growth of Gram-positive microorganisms; the phenol red acts as a pH indicator; the ferric ammonium citrate indicates the production of hydrogen sulphide

Salmonella ferments the xylose with acidification of the medium, and decarboxylates the lysine with consequent inversion of the pH of the medium to alkaline values.

TECHNIQUE

Inoculate the suitable Enrichment Broth (Mueller Kauffman Tetrathionate Broth or Tetrathionate Broth or Selenite Cystine Broth)

Subculture on XLT4 Agar plates streaking for isolation

Incubate for 18-24 hours at 37°C. If no growth occurs re-incubate for further 24 hours

Typical *Salmonella* colonies are H₂S positive and appear black or black centred with a yellow periphery after 18-24 hours of incubation. Upon continued incubation the colonies became entirely black or pink to red with black centres.

H₂S negative *Salmonella* colonies appear pinkish-yellow

Other Enterobacteria are markedly to completely inhibited

USER QUALITY ASSURANCE (37°C-24 HRS)

Productivity control

S.typhimurium ATCC 13076: growth, red colonies with black centres

Selectivity control

P.mirabilis ATCC 12453 : inhibited

Citrobacter freundii ATCC 8090: partially inhibited, yellow colonies

STORAGE

Dehydrated medium: 10-30°C

Supplement: 10-30°C

PACKAGING

Powdered medium

4022072 **XLT4 Agar Base,** **500 g (9.4 l)**

Selective supplement

4240097 **XLT4 Supplement (Tergitol 4)** **100 ml**