

TRYPTONE BILE AGAR (ISO 9308-1:2000)
TM 892

For fast detection and enumeration of *Escherichia coli* in foods using direct plating method

Composition

Ingredients	Gms/Ltr.
Tryptone	20.00
Bile salts no.3	1.50
Agar no. 2	15.00

* Dehydrated powder, hygroscopic in nature, store, in a dry place in tightly- sealed containers below 25°C and protect from direct Sunlight.

Instructions for Use

Dissolve 36.50gms in 1000ml of distilled water. Gently heat to boiling with gentle swirling and dissolve the medium completely. Sterilize by autoclaving at 15 psi (121°C) for 15 minutes. Cool to 50°C and dispense them into sterile Petri plates.

Appearance: Straw colour

pH (at 25°C): 7.2 ± 0.2

Principle

TRYPTONE BILE AGAR for fast detection and enumeration of *Escherichia coli* in foods using direct plating method. Medium first introduced by **Delaney, McCarthy** and **Grasso** in 1962 as a method for detecting faecal coliforms in water supplies based on the production of indole on a bile medium at 44°C. The inoculum is placed onto the membrane on a resuscitation agar and incubated at 37°C for 4 hours. The membrane is then transferred to a Tryptone Bile Agar plate and incubated at 44°C: after incubation the membrane is flooded with indole reagent. Indole positive colonies produce a red colour on the membrane and are easily counted.

Interpretation

Cultural characteristics observed after inoculating (10³CFU / ml), on incubation aerobically at 44 ± 1°C for 22 - 24 hours.

Microorganisms	ATCC	Inoculum (CFU/ml)	Growth	Indole reaction
<i>Escherichia coli</i>	25922	10 ³	Good	Positive
<i>Escherichia coli</i>	8739	10 ³	Good	Positive
<i>Enterobacter cloacae</i>	13047	10 ³	Good	Negative

References

1. Anderson, J.M., Baird-Parker, A.C. Arapid and direct method for enumerating *Escherichia coli* biotype I in food. J. Appl. Bact. 39: 111-117. (1975).
2. Delaney, J.E., McCarthy, J.A. & Grasso, R.J. Measurement of *E. coli* type I by the membrane filter technique Wat. Sewage Wks. 109, 289. (1962).
3. International Standard ISO 9308-1:2000.