A 1 BROTH

A liquid medium for the detection of faecal coliforms with MPN technique

TYPICAL FORMULA (g/l)

Tryptone	20.0
Lactose	5.0
Salicin	0.5
Sodium Chloride	5.0
Triton X-100	1.0

DIRECTIONS

Suspend 31.5 g in 1000 ml of cold distilled water. Gently heat to dissolve completely and distribute 9 ml into test tubes with a Durham tube. Sterilise by autoclaving at 121°C for 10 minutes. If required prepare multi-strength broth weighting the appropriate quantity of powdered medium.
Final pH 6.9 ± 0.1

DESCRIPTION

A1 Broth, prepared according to the formulation of Andrews & Presnell, is used for the detection of faecal coliforms in foods, treated wastewater and seawater as a most probable number (MPN) method.

TECHNIQUE

1 ml of multiple dilutions of sample (3 or 5 replicates per dilution) is added to test tubes containing 10 ml of A1 Broth. After incubation at 37°C for 3 hours and at 44.5°C for 21 hours, tubes with gas accumulation in the Durham tubes are scored positive for faecal coliforms and, those with no gas as negative. A MPN table is consulted to determine the most probable number of faecal coliforms.
From the positive tubes, subculture 0.1 ml to 10 ml of Peptone Tryptone Water (REF 401891). After incubation at 44°C for 18-24 hours, add 0.5 ml of Kovacs' Reagent (REF 19171000). The tubes, which develop a red ring, are considered positive for *E.coli.*

USER QUALITY ASSURANCE (44 °C-24 h)
Productivity control
E.coli ATCC 25922: growth, gas production
Selectivity control
E.faecalis ATCC 19433: partially inhibited, no gas production

STORAGE

Dehydrated medium: 10-30°C
User prepared tubes: up to 7 days in the dark at 2-8°C

REFERENCE

• Andrew, Presnell, (1972) App. Microb. **23**: 521.

PACKAGING

4010011	**A1 Broth,**	**100 (3.1 l)**
4010012	**A1 Broth,**	**500 g (15.9 l)**