Technical Information

Teepol Broth (Twin Pack)

Product Code: DM 1529

Application: - Teepol Broth (Twin Pack) is recommended for selective isolation and identification of enteric lactose fermenting bacteria from clinical and non clinical.

Composition**

Ingredients	Gms / Litre
Part A	-
Peptic digest of animal tissue	20.000
Lactose	10.000
Sodium chloride	5.000
Phenol red	0.020
Part B	-
Teepol	1.000
Final pH (at 25°C)	7.6±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Teepol Broth (Twin Pack) faecal coliform bacteria are agroup of bacteria passed through faecal excrement of humans, livestock and wild life. They are used as indicators of faecal pollution in water such as waste waters, effluents, rivers, marine environments, recreational waters and raw sources of drinking water supplies.

The use of teepol in place of bile salts was previously recommended by Jameson and Emberley (1). Burman (2) showed that if a preliminary incubation is carried out at lower temperature resuscitation is not required. Non-chlorinated organisms benefit from 4 hours incubation at 30°C but chlorinated organisms require 6 hours incubation at 25°C.

The coliform and *Escherichia coli* count are made on separate volumes of water. The water samples are filtered through membrane filter and this filter is placed face upwards on an absorbent pad saturated with Teepol Broth. The yellow colonies formed are further identified.

Presumptive coliform organisms: Yellow colonies from membranes incubated at 35°C, when subcultured in Lactose Peptone Water produce gas at 35°C after 43 hours.

Presumptive *Escherichia coli*: Yellow colonies from membrane at 44°C when subcultured into Lauryl Tryptose Mannitol Broth, incubated at 44°C produce gas and indole after 24 hours.

Methodology

Suspend 35.02 grams of dehydrated powder media **Part A** and then add 1 gram of **Part B** in 1000 ml distilled water. Mix thoroughly & heat if necessary to dissolve the medium completely. Dispense in tubes containing inverted Durham's tubes. Sterilize by autoclaving at 15 lbs pressure at (121°C) for 15 minutes.

Quality Control

Appearance
Part A: Light yellow to light pink homogeneous free flowing powder
Part B: Colourless viscous solution

Colour and Clarity
Red coloured clear to slightly opalescent solution

Reaction
Reaction of (3.5% w/v **Part A** + 0.1% v/v **Part B**) aqueous solution at 25°C. pH : 7.6±0.2

pH Range
7.40-7.80

Cultural Response
DM1529: Cultural characteristics observed after an incubation for 24-48 hours at following temperatures.

Organism	Growth at 35-37°C	Growth at 43-45°C
Escherichia coli ATCC 25922	good-luxuriant	good- luxuriant
Enterobacter aerogenes ATCC 13048	good-luxuriant	inhibited

Key : (*) Corresponding WDCM numbers. (#) Formerly known as *Enterobacter aerogenes.*

Storage and Shelf Life

Dried Media: Store between 10-30°C in a tightly closed container and the prepared medium at 15-25°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition Seal the container tightly after use. Product performance is best if used within stated expiry period.

Further Reading

1. Burman N.P., 1967 b, Rec. Adv. in Bacteriological Examination of Water, Collins C. H. (Ed.), Butterworth, London, pg. 185.
2. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
3. Jameson J.E. and Emberley N.W., 1956, J. Gen. Microbiol., 15:198.
4. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
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