

A1 MEDIUM

Basal medium for fecal coliforms detection in water.

TYPICAL FORMULA	(g/l)
Tryptone	20.0
Lactose	5.0
Sodium Chloride	5.0
Salicin	0.5

Final pH 6.9 ± 0.1 at 25°C.

DIRECTIONS

Suspend 30.5 g of powder in 1 liter of distilled or deionized water. Add 1.0 ml of TRITON X-100 Supplement (code 80046). Heat until completely dissolved. Dispense into final containers provided with Durham tube. Sterilize in autoclave at 121°C for 10 minutes.

DESCRIPTION

A1 MEDIUM is a medium used for detecting fecal coliforms in water according to Standards methods for the examination of water and wastewater, 19th Edition.

TECHNIQUE

Add 1 ml of sample dilution to test tubes containing 10 ml of A1 Medium.

Incubate tubes at 35 ± 0.5°C for 3 hours.

Transfer tubes to a water bath at 44.5 ± 0.2°C and incubate for an additional 21 ± 2 hours. Tubes with gas accumulation in the Durham tube will be considered as positive for fecal coliforms, those with no gas as negative. Consult a MPN table to determine the most probable number of fecal coliforms.

Positiveness for *E. coli* is obtained introducing 0.1 ml, taken from positive tubes, into 10 ml of Peptone Tryptone Water.

Incubate at 44.5 ± 0.2°C for 18-24 hours, then add 0.5 ml of Kovac's Reagent.

The development of a red ring signalizes positiveness for *E. coli*.

QUALITY CONTROL

Dehydrated medium

Appearance: lumpy.

Color: light beige.

Prepared medium

Appearance: clear.

Color: light amber.

Incubation conditions: 35 ± 0.5 °C for 3 hours. Then 44.5 ± 0.2 °C for 21 ± 2 hours.

Microorganism	ATCC	Growth	Characteristics
<i>Escherichia coli</i>	25922	good	gas production
<i>Escherichia coli</i>	13762	good	gas production
<i>Enterococcus faecalis</i>	19433	none to poor	
<i>Enterobacter aerogenes</i>	13048	poor to good	gas production
<i>Bacillus subtilis</i>	6633	none	

PERFORMANCE AND LIMITATIONS

Since the nutritional requirements of organisms vary, some strains may be encountered that fail to grow or grow poorly on this medium. Fecal coliform enumerations are usually greater than *E. coli* enumeration.

Interpretation of test procedure using A1 Medium requires understanding of the microflora of the specimens.



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STORAGE

The powder is very hygroscopic: store the powder at 10-30 °C, 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 tubes at 2-8 °C.

REFERENCES

1. Andrews, W.H., C.D. Diggs., and C.R.Wilson (1975). Appl. Microbiol. **29**:130-131.
2. Andrews., W.H., and M.W. Presnell (1972). Appl. Microbiol. **23**:521-523.
3. Eaton, A.D., L.S. Clesceri, and A.E. Greenberg (ed.) (1995). Standards methods for the examination of water and wastewater, 19 th Edition. American Public Health Association, Washington D.C.

PRESENTATION









Product	REF	
A1 MEDIUM (16.3 l) TRITON X-100	610105	500 g 1 x 17 ml
A1 MEDIUM (3.2 l) TRITON X-100	620105	100 g 1 x 5 ml

TABLE OF SYMBOLS

LOT Batch code	 Caution, consult accompanying documents	 Manufacturer	 Contains sufficient for <n> tests	 Keep away from heat source
REF Catalogue number	 Fragile, handle with care	 Use by	 Temperature limitation	



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