M-FC AGAR BASE TM 178

For detection and enumeration of faecal coliforms by membrane filter technique at higher temperature (44.5ºC)

Composition

Ingredients	Gms/Ltr.
Agar	15.00
Lactose	12.50
Tryptose	10.00
Proteose peptone	5.00
Sodium chloride	5.00
Yeast extract	3.00
Bile salts	1.50
Aniline Blue	0.10

* 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 52.1gms in 1000ml distilled water. Containing 10 ml of 1% Rosolic Acid (TS 048). Gently heat to boiling with gentle swirling and dissolve the medium completely. **DO NOT AUTOCLAVE**. Cool to 45°C and pour in to sterile Petri - plates.

Appearance: Purple colour, on addition of 1% Rosolic Acid: Red colour appears, slightly opalescent gel
pH (at 25ºC): 7.4 ± 0.2

Principle

M-FC AGAR BASE is used for detection and enumeration of faecal coliforms by membrane filter technique at higher temperature (44.5ºC). The medium consists of Proteose peptone, Tryptose and Yeast extract provide necessary nutrients for the growth of faecal coliforms. Lactose is the carbon source as well as fermentable carbohydrate in the medium. Bile salts inhibit the growth of contaminating gram-positive microorganisms. Aniline blue is a triphenyl methane dye which suppresses the growth of many gram-positive microorganisms. Aniline blue along with Rosolic acid forms the indicator system of the medium. Membrane filters, through which water sample is passed are aseptically placed onto M-FC Agar base plates. If total coliforms are to be estimated, incubation is carried out at 35-37ºC whereas if faecal coliform count is to be estimated, incubation is done at 44-45ºC. Coliforms will form blue colonies whereas non-coliforms will form gray coloured colonies on M-FC Agar Base.

Interpretation

Cultural characteristics observed with added 1% Rosolic Acid (TS 048) after inoculating (10^3CFU / ml) on incubation at different temperatures 35 ± 2ºC and 44.5ºC for 22-24 hours.

Microorganisms	ATCC	Inoculum (CFU/ml)	Growth at 35-37°C	Colour of colony (on membrane filter)
Enterococcus aerogenes	13048	10^3	Good	Reddish-grey to blue-grey
Escherichia coli	25922	10^3	Good	Dark blue
Salmonella typhimurium	14028	10^3	Good	Reddish-grey
Staphylococcus aureus	25923	10^3	Inhibited	------

Reference

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