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MacConkey Broth

DM150

Intended Use

A selective medium for the examination of milk and water.

Contents

See pack label.

Formulation*

Material:	Concentration in medium:
Peptone A	20.0g/litre
Bile salts	1.5g/litre
Lactose	10.0g/litre
Sodium chloride	5.0g/litre
Bromocresol purple	0.02g/litre
Final pH: 7.3 ± 0.2	

Storage and shelf life

All dehydrated culture media containers should be kept tightly closed and stored in a dry place at 10 to 25°C until the expiry date shown on the pack label.

Precautions

For *in vitro* diagnostic use only. Observe approved hazard precautions and aseptic techniques. To be used only by adequately trained and qualified laboratory personnel. Sterilise all biohazard waste before disposal. Refer to Product Safety Data sheet (available on request or via MAST® website).

Materials required but not provided

Standard microbiological supplies and equipment such as loops, MAST® selective supplements, swabs, applicator sticks, incinerators and incubators, etc., as well as serological and biochemical reagents and additives such as blood.

Procedure

1. Refer to pack label for quantities and volumes required. Prepare MAST® MacConkey Broth (DM150D) by suspending the powder in distilled or deionised water. For sachet packs, dissolve the entire contents of the sachet in the volume shown on the label.
2. Distribute into test tubes or suitable bottles containing inverted fermentation vials.
3. Autoclave at 121°C (15 p.s.i.) for 15 minutes.
4. Allow to cool to room temperature.
5. Inoculate tubes of broth by the Ministry of Health (1969) recommended method.
6. Incubate at 37°C for 18 to 24 hours.

Interpretation of results

A presumptive positive test is shown by acid production (a colour change from purple to yellow) and gas production in the Durham tube. The most probable number of coliforms per 100ml water is obtained from McGrady's tables. Confirmation of positive results is carried out by subculture onto solid media such as MAST® MacConkey Agar (without salt - DM140D).

Quality control

Check for signs of deterioration. Quality control must be performed with at least one organism to demonstrate expected performance. Do not use the product if the result with the control organism is incorrect. The list below illustrates a range of performance control strains which the end user can easily obtain.

Test Organisms	Recovery	Medium colour	Gas
<i>Escherichia coli</i> ATCC® 25922	Good	Yellow	+
<i>Enterococcus faecalis</i> ATCC® 29212	Markedly inhibited	Purple	-

References

Bibliography available on request.