

MacConkey Broth Purple with BCP (Medium 7) IP

Intended Use

MacConkey Broth Purple with Bromocresol Purple is used for the presumptive identification of coliforms and for cultivating Gram-negative, lactose fermenting bacilli from a variety of samples like water, milk and food in compliance with IP.

Summary

MacConkey Broth Purple IP with Bromocresol Purple is a modification of the original bile salt broth recommended by MacConkey, which contained 0.5% sodium taurocholate and litmus as the indicator.

The above-mentioned MacConkey Broth is recommended for use in microbiological examination of clinical specimens, foodstuffs and for direct plating and inoculation of water samples for coliform counts.

Principle

Peptone provides essential nutrients. Bromocresol purple is the pH indicator. Lactose is the fermentable carbohydrate.

Formula*

Ingredients	g/L
Pancreatic digest of gelatin	20.0
Lactose	10.0
Dehydrated Ox Bile	5.0
Bromocresol Purple	0.01
Final pH (at 25°C)	7.3 ± 0.2

*Adjusted to suit performance parameters.

Storage and Stability

Store dehydrated medium below 30°C in tightly closed container and the prepared medium at 2°C-8°C. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

Type of Specimen

Food and Dairy samples; Water samples

Specimen Collection and Handling

Ensure that all samples are properly labelled. Follow appropriate techniques for handling samples as per established guidelines. Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure. The samples must be stored and tested within the permissible time duration. After use, contaminated materials must be sterilized by autoclaving before discarding.

Directions

1. Suspend 35.01 g of the powder in 1000 mL purified / distilled water.
2. Mix thoroughly.
3. Boil with frequent agitation to dissolve the powder completely.
4. Dispense into tubes containing inverted Durham's tubes.
5. Sterilize by autoclaving at 121°C (15 psi) for 15 minutes as per validated cycle.

Quality Control

Dehydrated Appearance: Light yellow to beige coloured, homogeneous, free flowing powder.

Prepared Appearance: Purple coloured, clear solution without any precipitate.

Growth Promotion Test: Growth promotion is carried out in accordance with the method of IP and growth is observed after an incubation at 42°C-44°C for 24-48 hours. Subculturing is carried out using MacConkey Agar (Harmonized) after enrichment in MacConkey Broth Purple with Bromocresol Purple IP at 30°C-35°C for 18 - 72 hours.

Growth Promoting Properties: The test results observed are within the specified temperature and shortest period of time specified in the test, inoculating ≤100 cfu of appropriate microorganism at 42°C-44°C for 24 hours.

Inhibitory Properties: No growth of the test microorganism occurs for the specified temperature and not less than the longest period of the time specified, inoculating >100 cfu of the appropriate microorganism at 42°C-44°C for ≥ 48 hours.

Organism (ATCC)	Growth	Acid
<i>Escherichia coli</i> (8739)	Good	+

Inhibitory <i>Staphylococcus aureus</i> subsp. <i>aureus</i> (6538)	Inhibited	–
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Key:

For Acid (+) - Positive, yellow colouration

For Acid (-) - Negative, no colour change

Note: For inhibition no growth of test microorganism should occur. Inoculum for good growth should be between 10-100 cfu and that for inhibition is greater than 100 cfu.

Interpretation of Results

1. Lactose fermenting organisms grow well producing acid causing the medium to turn yellow. Gas is also produced which collects in the inverted Durham's tubes.
2. Non-lactose fermenting organisms produce good growth but will not produce acid or gas.

Performance and Evaluation

Performance of the product is dependent on following parameters as per product label claim:

1. Directions
2. Storage
3. Expiry

Warranty

This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

Reference

1. IP. 1996, Ministry of Health and Family Welfare, Govt. of India, Vol.2.
2. US Pharmacopeial Convention, Inc. 2001, The United States Pharmacopoeia 25/NF 20-2002. The US Pharmacopeial Convention, Inc; Rockville, Md.
3. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	Product description	Pack Size
201130240500	Dehydrated Culture Media	500 g

Disclaimer

Information provided is based on our inhouse technical data on file, it is recommended that user should validate at his end for suitable use of the product.
