

Specification

A modification of MacConkey Agar containing bile salts No. 2 for the identification of enterococci.

Formula * in g/L

Peptones.....	20.000
Lactose.....	10.000
Bile salts No. 2.....	1.500
Sodium chloride.....	5.000
Neutral red.....	0.050
Crystal violet.....	0.001
Agar.....	15.000

Final pH 7,2 ±0,2 at 25 °C

* Adjusted and /or supplemented as required to meet performance criteria

Directions

Suspend 51,5 g of powder in 1 L of distilled water. Bring to the boil and sterilize in the autoclave at 121°C for 15 minutes.

Description

MacConkey No. 2 Agar is a modification of the MacConkey Agar No. 3 (Art. No. DSHB3007), Due to the use of a different mixture of bile salts the agar is less inhibitory. This medium is specially used for the identification of enterococci in the presence of coliforms and non-lactose fermenters, in food, water, sewage or any other sample.

Enterococci appear as small deep red colonies with a pale peripheral zone about 1 mm in diameter. Enterococci can be considered as an index of faecal pollution.

Non-lactose fermenters produce colourless colonies.

Non-faecal streptococci, staphylococci and other bile-tolerant Gram positive cocci are completely inhibited.

Quality control

Incubation temperature: 35 °C ±2.0

Incubation time: 18-44 h

Inoculum: Practical range 100 ± 20 CFU. Min. 50 CFU (Productivity) / 10⁴-10⁶ CFU (Selectivity).

Microorganism	Growth	Remarks
<i>Staphylococcus aureus</i> ATCC® 6538	Total inhibition	-
<i>Enterococcus faecalis</i> ATCC® 29212	Good	48 h. Pink coloured colonies red centres
<i>Enterococcus faecalis</i> ATCC® 19433	Good	48 h. Pink coloured colonies red centres
<i>Escherichia coli</i> ATCC® 25922	Good	Pink-red colonies, slow o without precipitation
<i>Escherichia coli</i> ATCC® 8739	Good	Pink-red colonies, slow o without precipitation
<i>Salmonella typhimurium</i> ATCC® 14028	Good	Colourless colonies w/o precipitate

References

- ATLAS, R.M. & L.C. PARKS (1993) Handbook of Microbiological Media. CRC Press Inc. London.
- ISO/TS 11133-1: 2009 Microbiology of food and animal feeding stuffs.- Guidelines on preparation and production of culture media. Part 1: General guidelines on quality assurance for the preparation of culture media in the laboratory.
- ISO/TS 11133-2: 2003 Corr. 2004 Microbiology of food and animal feeding stuffs.- Guidelines on preparation and production of culture media. Part 2: Practical guidelines on performance testing of culture media.
- MacCONKEY, A.T. (1905) Lactosa fermenting bacteria in faeces. J. Hyg. 5:333.

Storage

For laboratory use only. Keep tightly closed, away from bright light, in a cool dry place (+4 °C to 30 °C).