

TMP 016 - MacCONKEY AGAR PLATE (W/O CV, NaCl W/ 0.5% SODIUM TAUROCHOLATE)

INTENDED USE

For the selection and recovery of the Enterobacteriaceae and related enteric gram-negative bacilli from clinical, food and water samples.

PRODUCT SUMMARY AND EXPLANATION

MacConkey Agar is the earliest selective and differential medium for cultivation of enteric microorganisms from a variety of clinical specimens. Subsequently MacConkey Agar and Broth have been recommended for use in microbiological examination of foodstuffs and for direct plating / inoculation of water samples for coliform counts. These media are also accepted by the Standard Methods for the Examination of Milk and Dairy Products and pharmaceutical preparations.

COMPOSITION

Ingredients	Gms / Ltr
Peptone	20.000
Lactose	10.000
Sodium taurocholate 5.000	5.000
Neutral red	0.040
Agar	20.000

PRINCIPLE

Original medium contains protein, bile salts, sodium chloride and two dyes. The selective action of this medium is attributed to bile salts, which are inhibitory to most species of gram-positive bacteria. MacConkey Agar w/o CV, NaCl and W/ 0.5% Sodium taurocholate is a modification of the original formulation with the exclusion of crystal violet and inclusion of sodium taurocholate instead of bile salts. Gram-negative bacteria usually grow well on the medium and are differentiated by their ability to ferment lactose. Lactose fermenting strains grow as red or pink and may be surrounded by a zone of acid precipitated bile. The red colour is due to production of acid from lactose, absorption of neutral red and a subsequent colour change of the dye when the pH of medium falls below 6.8. Lactose non-fermenting strains, such as *Shigella* and *Salmonella* are colourless and transparent and typically do not alter appearance of the medium. *Yersinia enterocolitica* may appear as small, non-lactose fermenting colonies after incubation at room temperature.

INSTRUCTION FOR USE

Either streak, inoculate or surface spread the test inoculum aseptically on the plate.

QUALITY CONTROL SPECIFICATIONS

Appearance	:	Orange red coloured medium.
Quantity of Medium	:	25ml of medium in 90mm plates.
pH (at 25°C)	:	7.4 ± 0.2
Sterility Check	:	Passes release criteria

INTERPRETATION

Cultural response was observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Appearance of colony	Incubation Temperature	Incubation Period
<i>Salmonella Paratyphi A</i>	9150	50-100	Luxuriant	>=70%	Colourless	30-35 °C	18-24 Hours
<i>Enterococcus faecalis</i>	25912	50-100	Fair-good	20-40%	pale pink to red	30-35 °C	18-24 Hours
<i>Staphylococcus aureus subsp. aureus</i>	25923	50-100	Fair-good	20-40%	pale pink -red	30-35 °C	18-24 Hours
<i>Salmonella Paratyphi B</i>	8759	50-100	Luxuriant	>=70%	Colourless	30-35 °C	18-24 Hours
<i>Salmonella Typhi</i>	6539	50-100	Luxuriant	>=70%	Colourless	30-35 °C	18-24 Hours
<i>Salmonella Enteritidis</i>	13076	50-100	Luxuriant	>=70%	Colourless	30-35 °C	18-24 Hours
<i>Escherichia coli</i>	25922	50-100	Luxuriant	>=70%	pink to red with bile precipitate	30-35 °C	18-24 Hours
<i>Shigella flexneri</i>	12022	50-100	Fair-good	20-40%	Colourless	30-35 °C	18-24 Hours
<i>Proteus vulgaris</i>	13315	50-100	Luxuriant	>=70%	Colourless	30-35 °C	18-24 Hours
<i>Klebsiella aerogenes</i>	13048	50-100	Luxuriant	>=70%	pale pink -red	30-35 °C	18-24 Hours

Formerly known as *Enterobacter aerogenes*

PACKAGING:

Doubled layered packing containing 5 No. of plates with one silica gel desiccant bag packed inside it.

STORAGE

On receipt, store the plates at 15–30 °C. Avoid freezing and overheating. Do not open until ready to use. Prepared plates stored in their original sleeve wrapping until just prior to use may be inoculated up to the expiration date and incubated for recommended incubation times. Allow the medium to warm to room temperature before inoculation.

Product Deterioration: Do not use plates if they show evidence of microbial contamination, discoloration, drying, cracking or other signs of deterioration.

DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

1. Baird R.B., Eaton A.D., and Rice E.W., (Eds.), 2015, Standard Methods for the Examination of Water and Wastewater, 23rd ed., APHA, Washington, D.C.
2. Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.
3. MacConkey, 1900, The Lancet, ii:20.
4. MacConkey, 1905, J. Hyg., 5:333.
5. The United States Pharmacopoeia XXI and the National Formulary, 16th ed., 1985, United States Pharmacopoeial Convention, Inc., Washington, D.C.
6. Wehr H. M. and Frank J. H., 2004, Standard Methods for the Microbiological Examination of Dairy Products, 17th Ed., APHA Inc., Washington, D.C.



QTY.
Quantity

**LOT/
B. NO.**
Lot / Batch Number


Temperature Unit


Manufacturer


Best Before

GMP
Certification of
Good Manufacturing Practices

REF
Catalogue No.

EC REP MedNet GmbH
Barkstrasse 10,
49163 Moenster, Germany
Authorized Representative

CE
European Conformity




Consults Instructions for use :

IVD
For In Vitro Diagnostic Use

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

Revision: 22nd March,, 2022

