

TECHNICAL DATA SHEET

Article No. 8174

Slanetz and Bartley Agar (base)

SYNONYMS

m-Azide Agar, m-Enterococcus Agar, m-Slanetz Enterococcus Agar

SPECIFICATION

Differential selective medium for the detection and enumeration of enterococci, according to ISO 7899-2.

FORMULA* IN G/L

Tryptose	20.0
Yeast extract	5.0
Dextrose	2.0
Dipotassium phosphate	4.0
Sodium azide	0.4
Agar	12.0

Final pH 7.2 ±0.1 at 25 °C

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

DIRECTIONS

Suspend 43.4 g in 1 l of distilled water and heat to boiling. Sterilize by autoclaving at 121 °C for 15 minutes. Cool down to 50 °C and add 10 ml/l of sterile TTC solution 1 % (Art. no. 8055). Mix well and distribute into sterile plates immediately.

DESCRIPTION

This formulation, without TTC, allows sterilization in the autoclave without the development of a pink colour due to formazan which is formed as a result of the partial thermal-reduction of TTC. This modification is more tedious in its preparation but provides a colourless medium, making the results easier to read and the colonies are more sharply defined.



TECHNIQUE

For the membrane filtration technique, take 100 ml of a well mixed water sample, and pass it through a sterile membrane filter. Then wash with 30 ml of sterile water to rinse the funnel.

Using sterile forceps, transfer the membrane aseptically to the culture medium contained in a Petri dish, making sure that the filter surface faces upwards. Close the lid and invert the plate. Incubate at 36 ± 2 °C for 44 ± 4 hours. The developed colonies that appear red or purple in colour must be considered as enterococci, since these bacteria reduce Triphenyltetrazolium-HCl to an insoluble formazan which is red in colour. The secondary or accompanying Gram negative bacteria are inhibited by sodium azide.

For food samples, from a decimal dilution bank of the sample, spread 0.1 ml of the dilutions onto the plated medium using a Drigalsky loop. Incubation and examination is then carried out in the same way as in the membrane filtration technique.

QUALITY CONTROL

- Incubation temperature: 36 ± 2.0 °C
- Incubation time: 44 ± 4 h
- Inoculum: Practical range 100 ± 20 CFU. Min. 50 CFU (productivity) / 10^4 - 10^6 CFU (selectivity). Membran filter method (or spiral plate method), according to ISO 11133:2014 /Amd 1:2018.

Microorganism	Growth	Remarks
<i>Escherichia coli</i> ATCC® 25922	Inhibited	Selectivity
<i>Enterococcus faecalis</i> ATCC® 29212	Productivity >0.50	Dark red colonies
<i>Enterococcus faecalis</i> ATCC® 19433	Productivity >0.50	Dark red colonies
<i>Staphylococcus aureus</i> ATCC® 25923	Inhibited	Selectivity
<i>Enterococcus faecium</i> ATCC® 6057	Productivity >0.50	Pink to red colonies

REFERENCES

- ATLAS, R.M. and L.C. PARKS (1993) Handbook of Microbiological Media. CRC Press. Boca Raton. Fla. USA.
- ISO 7899-2:2000 Standard. Water Quality. Detection and enumeration of enterococci by membrane filtration method.
- ISO 11133:2014. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.
- LACHICA, LV.F. and P.A. HARTMAN (1968) Two improved media for isolating and enumerating enterococci in certain frozen foods. J. appl. Bact. 31:151-156.
- SLANETZ, L.W. and BARTLEY, C.H. (1957) Numbers of enterococci in water, sewage and faeces determined by the membrane filter technique with an improved medium. J. Bact. 74:591-596.
- UNE-EN ISO 11133 (2014). Microbiología de los alimentos para consumo humano, alimentación animal y agua.-Preparación, producción, conservación y ensayos de rendimiento de los medios de cultivo.

STORAGE

Keep tightly closed, away from light, in a dry place (4-30 °C).

SHELF LIFE

4 years from date of production.

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