



Reference : 01-236

Scharlau Microbiology - Technical data sheet

Product :
LETHEEN AGAR

Also known as

AOAC Letheen Agar; TGE w: Lecithin w. Tween 80

Specification

Solid medium for assays of antimicrobial action of Quaternary Ammonium Compounds (QAC's).

Formula * in g/L

Tryptone..... 5.00
Meat extract..... 3.00
Dextrose..... 1.00
Lecithin..... 1.00
Agar..... 15.00

Final pH 7.0 ±0,2 at 25 °C

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

Directions

Suspend 25 g of powder in 1 L of distilled water with 7 mL of Polysorbate 80 (Art. No. TW0080). Let it soak and bring to the boil stirring constantly. Distribute in suitable containers and sterilize in the autoclave at 121°C for 15 minutes.

Description

Letheen Agar is formulated according to AOAC guidelines, that were taken from the research work of Weber and Black for the assay of bactericidal action of Quaternary Ammonium Compounds (QAC's). In fact, the medium is the classical formulation for standard counting methods with the addition of lecithin and polysorbate, which act as the neutralizers of the QAC's.

Quality control

Incubation temperature: 37 ± 1 °C

Incubation time: 44 ±4 h

Inoculum: Practical range 100 ± 20 CFU. Min. 50 CFU (Productivity) according to ISO 11133:2014/Amd 1:2018 Spiral Plate Method.

Microorganism	Growth	Remarks
<i>Staphylococcus aureus</i> ATCC® 25923	Productivity > 0.70	-
<i>Staphylococcus epidermidis</i> ATCC® 12228	Productivity > 0.70	-
<i>Escherichia coli</i> ATCC® 25922	Productivity > 0.70	-
<i>Pseudomonas aeruginosa</i> ATCC® 27853	Productivity > 0.70	-
<i>Bacillus subtilis</i> ATCC® 6633	Productivity > 0.70	-

References

- ASTM Standard E 640-78 (1991) Test method for preservatives in water-containing cosmetics. Philadelphia. PA.
- ATLAS, R.M., L.C. PARKS (1993) Handbook of Microbiological Media. CRC Press, Inc. London.
- FDA (Food and Drug Administrations) (1998) Bacteriological Analytical Manual. 8th ed. Revision A. AOAC International. Gaithersburg. MD.
- HORWITZ, W. (2000) Official Methods of Analysis. 17th ed. AOAC International. Gaithersburg. MD.
- ISO 11133:2014/ Adm 1:2018. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.
- LUCAS, J.P. (1977) Microbiological Examination of Cosmetics. Newburguers' Manual of Cosmetic Analysis. AOAC.
- WEBER, G.R. & L.A. BLACK (1948) Relative efficiency of quaternary inhibitors. Soap and Sanit Chem. 24:134-139.

Storage

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