

Specification

Selective medium for *Pseudomonas* species when adding the Selective Supplement CFC or CN.

Formula * in g/L

Gelatin peptone.....	16.00
Casein peptone.....	10.00
Potassium sulfate.....	10.00
Magnesium chloride.....	1.40
Agar.....	14.00

Final pH 7.2 ±0.2 at 25 °C

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

Directions

Add 51,4 g in 1 L of distilled water with 10 mL of Glycerol. Bring to the boil, distribute into containers and sterilize at 121° C for 15 minutes. Cool to 45-50°C and add 2 flask of the CFC Selective Supplement (Ref. DSHB3020). Homogenise and pour into plates.

Remarks: for selective medium according to the ISO 16266 Standard, add 2 vials of the Selective Supplement CN (Ref. DSHB3092).

Description

This media is specially formulated to be supplemented by Ref. DSHB3092 CN Selective Supplement, or CFC Selective Supplement Ref. DSHB3020.

Necessary supplements:

CN Selective Supplement (Ref.DSHB3092)

Necessary amount for 500 mL of complete medium.

Cetrimide..... 100.0 mg

Nalidixic acid, sodium salt..... 7.5 mg

or

CFC Selective Supplement (Ref. DSHB3020)

Necessary amount for 500 mL of complete medium.

Cetrimide..... 5.0 mg

Fucidin..... 5.0 mg

Cephalosporin.....25.0 mg

Technique

A volume of the sample is passed through a filter membrane of 0,45 µm pore and the membrane is then placed on the surface of the medium. The plates are incubated à 36 ± 2 °C for a period of 44 ± 4 hours with a partial examination à 22 ± 2 hours (for CN *Pseudomonas* Agar). The plates are incubated à 25 ± 1 °C for a period of 44 ± 4 hours with a partial examination à 22 ± 2 hours (for CFC *Pseudomonas* Agar).

All colonies producing a green or blue (pyocyanin) pigmentation in this period may be considered *Pseudomonas aeruginosa* and do not require further conformational testing.

All colonies that produce fluorescence under the Wood's light (without pyocyanin production) are considered presumptive *P. aeruginosa* but must be confirmed on Acetamide Medium.

All colonies producing a brown-reddish pigment and have no fluorescence or pyocyanine are also considered presumptive *P.aeruginosa* and must be confirmed by the oxidase test and by typical growth on Acetamide Medium and King B Agar (F Agar).

Quality control

Incubation temperature: 25 °C ± 1.0 °C

Incubation time: 44 ± 4 h

Inoculum: Practical range 100 ± 20 CFU. min. 50 CFU (productivity)/ 10⁴-10⁶ CFU (selectivity) according to ISO 11133:2014/Amd 1:2018. MF methods.

Microorganism
Growth
Remarks

Escherichia coli ATCC® 8739

Inhibited

with Selective supplement

Pseudomonas fluorescens ATCC® 13525

Productivity > 0.50

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Pseudomonas fragi ATCC® 4973

Productivity > 0.50

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References

- BROWN, V.L. & E.J.L. LOWBURY (1965) Use of an improved Cetrimide Agar Medium and of culture methods for *P. aeruginosa*. J., Clin. Pathol. 18:752.
- GOTO S. & S. ENOMOTO (1970) Nalidixic acid cetrimide agar. A new selective plating medium for the selective isolation of *P. aeruginosa*. Jpn. J. Microbiol. 14:65.
- ISO 16266 Standard (2006) Water Quality. - Detection and enumeration of *Pseudomonas aeruginosa*. - Method by membrane filtration.
- ISO 11133:2014/ Adm 1:2018. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.
- ISO 13720 Standard (2010) Meat and meat products. Enumeration of presumptive *Pseudomonas* spp.
- KING, E.O., M.K. WARD & E.E. RANEY (1954) Two simple media for the demonstration of pyocyanin and fluorescein. J. Lab. Clin. Med. 44:301.
- ROBIN, T. & J.M. JANDA (1984) Enhanced recovery of *P. aeruginosa* from diverse clinical specimens on a new selective agar. Diag. Microbiol. Infect Dis. 2:207.
- SCHWEIZERISCHE LEBENMITTELSBUCH (2005) Kap. 56 Mikrobiologie. Bundesamt für Gesundheit. Direktionsbereich Verbraucherschutz. Bern.

Storage

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