

Specification

Selective medium for isolation of *Pseudomonas* spp. from food samples, according to ISO standards.

Presentation

20 Prepared Plates
90 mm
with: 21 ± 2 ml

Packaging Details

1 box with 2 cellophane bags with 10 plates/bag.

Shelf Life

3 months

Storage

2-14°C

Composition

Composition (g/l):

Gelatine Pancreatic Peptone.....	16.0
Casein Hydrolizate.....	10.0
Sulphate Potassium.....	10.0
Magnesium Chloride.....	1.40
Agar.....	11.0
Cetrimide.....	0.01
Fucidine.....	0.01
Cephalothin Sodium Salt.....	0.05
Glycerol.....	10.0

Description /Technique

Description:

Pseudomonas CFC Agar is a selective medium recommended by ISO 13720 for the enumeration of *Pseudomonas* spp in meat and meat products, including poultry.

Gelatin peptone and enzymatic digest of casein provide nitrogen, vitamins, minerals and amino acids essential for growth and permits the growth of a great number of *Pseudomonas* spp. The potassium sulfate and magnesium chloride help the formation of pigmentation (pyocyanin). The addition of cetrimide, fucidin and cephalotin makes the medium more selective for *Pseudomonas* spp. including *P. aeruginosa* and *Burkholderia cepacia*.

Technique:

Collect, dilute and prepare samples and volumes as required according to specifications, directives, official standard regulations and/or expected results.

Spread the plate streaking methodology or by spiral method.

Incubate the plates right side up aerobically at 24-26 °C for 44±4h.

(Incubation times longer than those mentioned above or different incubation temperatures may be required depending on the sample, on the specifications,...)

After incubation, enumerate all the colonies that have appeared onto the surface of the agar.

Each laboratory must evaluate the results according to their specifications.

Presumptive isolation of *Pseudomonas* spp. must be confirmed by further microbiological or biochemical tests.

Colonies which show a positive oxidase reaction but no glucose fermentation are *Pseudomonas* spp. colonies.

Quality control

Physical/Chemical control

Color : yellow pH: 7.2 ± 0.2 at 25°C

Microbiological control

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

Microbiological control according to ISO 11133:2014/ Adm 1:2018.

Aerobiosis. Incubation at 24-26 °C, reading after 40-48 hours

Microorganism

Escherichia coli ATCC® 8739, WDCM 00012

Growth

Inhibited

Ps. fluorescens ATCC®13525, WDCM 00115

Good (≥ 50 %)

Ps. fragi NCTC® 10689

Good (≥ 50 %)

Sterility Control

Incubation 48 hours at 30-35°C and 48 hours at 20-25°C: NO GROWTH

Check at 7 days after incubation in same conditions

Bibliography

- 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.
- ISO 11133:2014/ Adm 1:2018. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.
- EN 12780 Standard (2002) Water Quality. Detection and enumeration of *P. aeruginosa* by membrane filtration.
- ISO 13720 Standard (2010) Meat and meat products. Enumeration of presumptive *Pseudomonas* spp.
- 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.
- 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.
- ISO/TS 11059:2009. Milk and milk products – Method for the enumeration of *Pseudomonas* spp.