

Specification

Selective solid medium used for the detection of *Pseudomonas aeruginosa* according to ISO 16266 Standard.

Presentation

	Packaging Details	Shelf Life	Storage
30 Membrane filtration plates 55 mm Plates for filtration purposes with: 9 ± 1 ml	1 box containing: 6 plastic bags with 5 plates of 55 mm/ bag.	6 months	2-25 °C

Composition

Composition (g/l):	
Gelatin Peptone.....	16.000
Casein Peptone.....	10.000
Magnesium chloride.....	1.400
Potassium sulfate.....	10.000
Cetrimide.....	0.200
Sodium Nalidixate.....	0.015
Glycerol.....	10.000 ml
Agar.....	13.600

Description /Technique

Description:

The CN Selective Medium for *Pseudomonas* was progressively developed from the basic media of King, Ward and Raney for the production of pigments. Browne and Lowbury add the cetrimide as selective agent and Goto and Enomoto improves efficiency by adding nalidixic acid. The presence of both inhibitors eliminates the contaminant microbiota from heavily polluted specimens and was adopted by ISO Standard for the detection of *Ps. aeruginosa* by filtering membrane in water.

Technique:

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

Filter the sample through a 0.45 mm Ø pore membrane and apply it onto the surface of the agar.

Incubate the plates air room atmosphere at 36 ± 2°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, count the colonies with a blue-greenish appearance due to pigment production by *Pseudomonas* sp.

Calculate total microbial count per ml of sample by multiplying the average number of colonies per plate by the inverse dilution factor.

Report results as Colony Forming Unit (CFU) per ml along with incubation time and temperature.

Presumptive isolation of *Pseudomonas* sp must be confirmed by further tests.

Quality control**Physical/Chemical control**

Color : Off-white / opalescent pH: 7.1 ± 0.2 at 25°C

Microbiological control

Membrane Filtration /Practical range 100 ± 20 CFU. min. 50 CFU (productivity)/10⁴-10⁶ CFU (selectivity)/ ≥10³ CFU (specificity).

Microbiological control according to ISO 11133:2014/A1:2018.

Analytical methodology according to ISO 11133:2014/A1:2018; A2:2020.

Aerobiosis. Incubation at 36 ± 2 °C, reading at 44±4 h

Microorganism**Growth**

<i>Ps. aeruginosa</i> ATCC® 9027, WDCM 00026	Good (≥50 %)
<i>Ps. aeruginosa</i> ATCC® 27853, WDCM 00025	Good (≥50 %)
<i>Ps. aeruginosa</i> ATCC® 10145, WDCM 00024	Good (≥50 %)
<i>Escherichia coli</i> ATCC® 8739, WDCM 00012	Inhibited
<i>Enterococcus faecalis</i> ATCC® 19433, WDCM 00009	Inhibited

Sterility control

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

Check at 7 days after incubation in same conditions.

Bibliography

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