

Pseudomonas Agar Base

Selective medium for detection and enumeration of *Pseudomonas* spp, according to ISO 13720, ISO/TS 11059 and ISO 16266.

TYPICAL FORMULA	(g/l)
Gelatin Peptone	16.0
Casein Hydrolysate	10.0
Potassium Sulfate, Anhydrous	10.0
Magnesium Chloride, Anhydrous	1.4
Agar	15.0
Final pH 7.1 ± 0.2 at 25°C	

DESCRIPTION

Pseudomonas Agar Base is a medium used with supplements for the selective isolation of *Pseudomonas* spp from meat and dairy products, water, environmental samples and clinical specimens.

When supplemented with CFC (*Pseudomonas*) Supplement (ref. 81049), the medium complies with the recommendations of ISO 13270 for the detection and enumeration of *Pseudomonas* spp in meat and meat products.

When supplemented with PP (*Pseudomonas*) Supplement (ref. 81093) the medium complies with the recommendations of ISO/TS 11059 for the isolation and enumeration of *Pseudomonas* spp in milk and milk products.

When supplemented with CN (*Pseudomonas*) Supplement (ref. 81006) the medium complies with the recommendations of ISO 16266 for the detection and enumeration of *Pseudomonas aeruginosa* in water samples by using the membrane filtration technique.

PRINCIPLE

Gelatin peptone and casein hydrolysate provide amino acids, nitrogen, carbon, minerals, vitamins and other nutrients for organisms growth. Potassium sulfate and magnesium chloride promote pyocyanin production. Agar is the solidifying agent.

Supplementation with Glycerol Supplement (ref. 80021) supplies a carbon and energy source enhancing pyocyanin production.

CFC Supplement contains Cetrimide, Fusidic Acid and Cefaloridin.

PP Supplement contains Primaricin (Natamycin) and Penicillin G.

CN Supplement contains Cetrimide and Nalidixic Acid.

By use of the appropriate selective supplement and incubation conditions the medium becomes selective for *Pseudomonas* spp, including *Burkholderia cepacia* (CFC Agar and PP Agar), or *Pseudomonas aeruginosa* (CN Agar).

PREPARATION

Suspend 52.4 g of powder in 1 liter of deionized or distilled water. Add 10 ml of Glycerol Supplement. Bring to boil and shake until completely dissolved. Sterilize at 121°C for 15 minutes. Cool up to 45-50°C.

To prepare *Pseudomonas* CFC Agar, aseptically, add rehydrated content of 2 vials (4 ml) of CFC Supplement.

To prepare *Pseudomonas* PP Agar, aseptically, add rehydrated content of 2 vials (10 ml) of PP Supplement.

To prepare *Pseudomonas* CN Agar, aseptically, add rehydrated content of 2 vials (4 ml) of CN Supplement.

Mix well and pour in Petri dishes.

TECHNIQUE

Pseudomonas CFC Agar and *Pseudomonas* PP Agar

Inoculate the medium by using the spread plate technique. Incubate aerobically at 25 ± 1°C for up to 5 hours.

Pseudomonas CN Agar

Inoculate the medium by using the membrane filtration method. Incubate aerobically at 36 ± 2°C for 40-48 hours.

INTERPRETATION OF RESULTS

All colonies grown on either CFC Agar or PP Agar are suspect *Pseudomonas* spp. Colonies which result non-glucose fermenters (ref. 88202) and oxidase positive (ref. 88029, 88003 or 88004) are confirmed as *Pseudomonas* spp.

Examine membranes on CN Agar for growth and fluorescence under UV light after 20-24 h and 40-48 h.

- Count all colonies that produce the green-blue pigment as confirmed *Pseudomonas aeruginosa*.
- Count all non-pyocyanin producing colonies that fluoresce as presumptive *Pseudomonas aeruginosa*. Confirm by using Acetamide Broth (ref. 24144).
- Count all other reddish-brown non-pigmented colonies that do not fluoresce as presumptive *Pseudomonas aeruginosa*. Confirm by using the oxidase test, Acetamide Broth and King's B Medium (ref. 11072).

STORAGE AND TRANSPORT CONDITIONS

The powder is very hygroscopic, store the powder at 10-30°C, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until signs of deterioration or contamination are evident. Store prepared plates at 2-8°C away from light.

WARNING AND PRECAUTIONS

The product does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous. It is nevertheless recommended to consult the safety data sheet for its correct use. The product is designed for *in vitro* diagnostic use only and must be used by properly trained operators.

DISPOSAL OF WASTE

Disposal of waste must be carried out according to the national and local regulations in force.



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REFERENCES

- EN ISO 11133:2014. Microbiology of food, animal feed and water – Preparation, production, storage and performance testing of culture media.
- ISO/TS 11059:2009 (IDF/RM 225: 2009) Milk and milk products – Method for the enumeration of *Pseudomonas* spp.
- UNI EN ISO 16266:2008. Water quality – Detection and enumeration of *Pseudomonas aeruginosa* by membrane filtration.
- ISO 13720:1995. Meat and meat products – Enumeration of *Pseudomonas* spp.
- Mead, G.C. and B.W. Adams (1977) A selective medium for the rapid isolation of *Pseudomonas* associated with poultry meat spoilage. Br. Poult. Sci. 18:661-670
- Goto S. and S. Enomoto (1970) Nalidixic acid cetrimide agar. A new selective plating medium for the selective isolation of *P. aeruginosa*. Jpn. J. Microbiol. 14:65.



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PRODUCT SPECIFICATIONS

NAME

Pseudomonas Agar Base

PRESENTATION

Dehydrated medium

STORAGE

10-30°C

PACKAGING

Ref.	Content	Packaging
610071	500 g	500 g of powder in plastic bottle
620071	100 g	100 g of powder in plastic bottle

pH OF THE MEDIUM

7.1 ± 0.2

USE

Pseudomonas Agar Base is a medium used with supplements for the selective isolation of *Pseudomonas* spp from meat and dairy products, water, environmental samples, according to ISO 13720, ISO/TS 11059 and ISO 16266. This medium can be used also for the examination of clinical specimens

TECHNIQUE

Refer to technical sheet of the product

APPEARANCE OF THE MEDIUM

Powder medium

Appearance: free-flowing, homogeneous

Colour: light beige

Ready-to-use medium

Appearance: slightly opalescent

Colour: amber

SHELF LIFE

4 years

QUALITY CONTROL

- Control of general characteristics, label and print
- Microbiological control
Inoculum for productivity: 50-100 CFU
Inoculum for selectivity: 10⁴-10⁶ CFU

Pseudomonas CFC Agar Incubation Conditions: 40-48 h at 25 ± 1°C, in aerobiosis

Microorganism		Growth
<i>Pseudomonas fluorescens</i>	WDCM 00115	Good
<i>Pseudomonas fragi</i>	WDCM 00116	Good
<i>Escherichia coli</i>	WDCM 00012	Inhibited











Pseudomonas PP Agar Incubation Conditions: 48 ± 2 h at 25 ± 1°C, in aerobiosis

Microorganism		Growth
<i>Pseudomonas fluorescens</i>	WDCM 00115	Good
<i>Pseudomonas aeruginosa</i>	WDCM 00025	Good
<i>Escherichia coli</i>	WDCM 00012	Inhibited

Pseudomonas CN Agar Incubation Conditions: 40-48 h at 36 ± 2°C, in aerobiosis

Microorganism		Growth
<i>Pseudomonas aeruginosa</i>	WDCM 00024	Good
<i>Enterococcus faecalis</i>	WDCM 00087	Inhibited
<i>Escherichia coli</i>	WDCM 00013	Inhibited

TABLE OF SYMBOLS

 LOT	Batch code	 IVD	<i>In vitro</i> Diagnostic Medical Device	 Manufacturer	 Use by	 Fragile, handle with care	
 REF	Catalogue number		Temperature limitation		Contains sufficient for <n> tests	 Caution, consult instructions for use	 Do not reuse



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