

66938 Penicillin and Pimaricin Agar, Base NutriSelect® Plus

PP Pseudomonas Agar Base is recommended for selective isolation of *Pseudomonas* species on addition of supplements. Recommended by ISO for the enumeration of *Pseudomonas* spp.

Composition:

Ingredients	Grams/Litre
Pancreatic digest of gelatin	16.0
Casein enzymic hydrolysate	10.0
Potassium sulphate	10.0
Magnesium chloride	1.4
Agar	15.0

Final pH 7.2 +/- 0.2 at 25°C

Store granulated media between 10-30°C in tightly closed container and the prepared medium at 2-8°C in the dark for not more than 1 day. Once opened keep powdered medium closed to avoid hydration. Use before expiry date on the label.

Appearance(color): Faint yellow to light yellow to light beige, free flowing powder

Gelling: Firm, comparable with 1.5% Agar gel.

Color and Clarity: Light yellow to light brown coloured, clear to slightly hazy gel forms in Petri plates

Directions:

Suspend 52.4 grams in 1000 ml distilled water containing 5 ml glycerol. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 50°C and aseptically add sterile rehydrated contents of PP Pseudomonas Selective Supplement I (Cat. No. 67055) and PP Pseudomonas Selective Supplement II (Cat. No. 66340). Mix well and pour into sterile Petri plates.

ISO/TS 11059:2009, IDF/RM 225:2009

- Add 0.1 ml of the sample or dilution on the plate and spread liquid over the surface.
- Incubate at 25°C +/- 1°C for 48 h +/- 2 h.
- Count colonies only on plates with less than 150 colonies.
- Select 5 colonies for confirmation. Streak on nutrient agar
- Incubation at 25°C +/- 1°C for 24-48 h.
- Oxidase test and glucose fermentation are used for confirmation. Colonies showing a positive oxidase reaction and absence of glucose fermentation are considered *Pseudomonas* species.

Principle and Interpretation:

Pancreatic digest of gelatin and casein hydrolysate provides nitrogenous, carbonaceous compounds and other essential growth nutrients. Glycerol is a carbon source. Potassium sulphate and magnesium chloride enhance the pigment production. *Pseudomonas aeruginosa* strains can produce two types of soluble pigments, the fluorescent pigment pyoverdin and the blue pigment pyocyanin. Penicillin G and natamycin added with the supplement makes the medium selective for the isolation of *Pseudomonas* by inhibition of the accompanying flora.



Cultural characteristics observed after an incubation aerobically at 25°C ± 1°C for 48 h ± 2 h.

Organisms (WDCM/ATCC)	Growth	Color of colony
<i>Pseudomonas fluorescens</i> (00115/13525)	+++	greenish yellow
<i>Pseudomonas aeruginosa</i> (00025/27853)	+++	greenish yellow
<i>Escherichia coli</i> (00013/25922)	-	
<i>Staphylococcus aureus</i> (00034/25923)	-	

References:

1. P.R. Murray, J.H. Baron, M.A. Pfaller, J.H. Jorgensen, R.H. Yolken, (Ed), Manual of Clinical Microbiology, 8th Ed., American Society for Microbiology, Washington, D.C. (2003)
2. International Organization for Standardization, International Dairy Federation, Milk and milk products — Method for the enumeration of *Pseudomonas* spp., Draft ISO/TS 11059:2009(E) IDF/RM 225:2009(E) (2009)

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

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