Pseudomonas Selective Agar Base, CN Agar, CFC Agar (i23151)

Pseudomonas Selective Agar Base, formerly known as CFC Agar or CN Agar is used for the detection and enumeration of *Pseudomonas*.

Industry: Water, Clinical

Principles & Uses

Pseudomonas Agar Base, a modification of King A medium, is tailored for enhanced pigment production, with magnesium chloride and potassium sulfate playing key roles. Cetrimide acts selectively, and nalidixic acid suppresses contaminants. Potassium sulfate and magnesium chloride facilitate pyocyanin production. Bacteriological agar solidifies the medium. Supplements selectively isolates *Pseudomonas aeruginosa* from clinical specimens by suppressing other species like *Klebsiella*, *Proteus*, and *Providencia*. Casein hydrolysate and gelatin peptone provide vital nitrogenous and carbonaceous compounds, long-chain amino acids, and essential growth nutrients. Examination under white and UV light after 24 and 48 hours reveals blue-green or brown pigmentation, indicative of presumptive *Pseudomonas aeruginosa* presence. Alteromonas species may form brown or pink colonies.

Composition (gr/L)

Peptone from Gelatine 16, Casein Hydrolysate10, Potassium Sulfate 10, Magnesium Chloride 1.4, Agar 11.

Final pH at 25°C 7.1 ± 0.2

Preparation from dehydrated Powder

Suspend 24.2 g in 500 ml of purified water. add 5 ml glycerol and heat to boiling until dissolved completely. Autoclave for 15 min. at 121°C. Cool the medium to 45 - 50°C and aseptically add the contents of one vial of Pseudomonas CN selective supplement or Pseudomonas CFC selective supplement.

Quality Control

Dehydrated Appearance: Straw colored, free flowing powder.

Prepared Appearance: Straw colored gel.

Reaction of 4.84 % Solution at 25°C: pH 7.1 ± 0.2

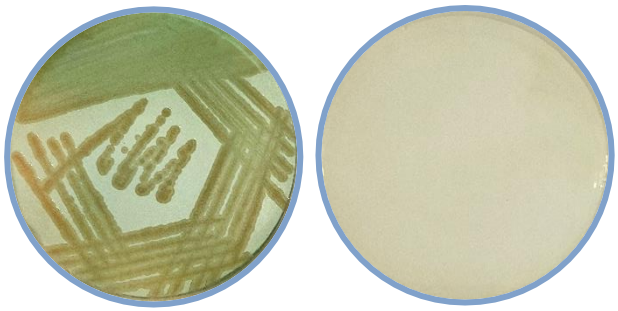
Cultural Response

Pseudomonas CFC Selective Agar: Inoculate the medium using the surface spread method. Incubation for 44 ± 4 hours at 25 ± 1°C.

Pseudomonas CN Selective Agar: Inoculate the medium using the membrane filtration technique. The filter material impacts results. Incubation for 44 ± 4 hours at 36 ± 2°C.

Organism (ATCC*)	Recovery
Pseudomonas CFC Selective Agar 44 h ± 4 h at 25 ± 1°C	
Pseudomonas aeruginosa (27853)	Good growth, straw-colored colonies with green pigmentation
Pseudomonas putida (12633)	Good growth, straw-colored colonies with green pigmentation
Proteus mirabilis (14153)	Inhibited
Staphylococcus aureus (25923)	Inhibited
Pseudomonas CN Selective Agar 44 h ± 4 h at 36 ± 2°C	
Pseudomonas aeruginosa (27853)	Good growth, straw-colored colonies with green pigmentation
Pseudomonas fluorescens (13525)	Inhibited
Burkholderia cepacia (25416)	Good growth, straw-colored colonies with brown pigmentation
Klebsiella pneumonia (13883)	Inhibited

*ATCC is a registered trade mark of the American Type Culture Collection.



Medium Prepared with Pseudomonas CN selective supplement. *Pseudomonas aeruginosa* (left). Prepared Culture Media (right).

Storage

Keep the container at 15 - 30 °C. Store prepared medium at 2 - 8 °C.