

PSEUDOMONAS AGAR BASE ISO 13720

CAT N°: 1356

For the isolation and enumeration of *Pseudomonas spp* from meat and meat products

FORMULA IN g/l

Gelatin Peptone	16.00	Magnesium Chloride	1.40
Potassium Sulfate	10.00	Bacteriological Agar	13.00
Enzymatic Digest of Casein	10.00		

Final pH 7.1 ± 0.2 at 25°C

PREPARATION

Suspend 25.2 grams of the medium in 500 ml of distilled water. Add 5 ml of Glycerol. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Sterilize in autoclave at 121°C for 15 minutes. Cool to 45-50°C and aseptically add one vial of the selective supplement C.F.C (Cat. 6036), previously reconstituted in 5 ml of sterile distilled water. Homogenize gently and dispense into Petri dishes. The prepared medium should be stored at 8-15°C. The color is amber, slightly opalescent.

The dehydrated medium should be homogeneous, free-flowing and beige in color. If there are any physical changes, discard the medium.

C.F.C. SELECTIVE SUPPLEMENT (CAT. 6036)

(Composition: each vial for 500ml)

Cetrimide.....5 mg
Fucidin.....5 mg
Cephaloridine.....25 mg

USES

PSEUDOMONAS AGAR BASE with added C.F.C. Supplement 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* species. The quantities of Potassium sulfate and Magnesium chloride favor the formation of pigmentation (production of pyocyanin). The addition of C.F.C supplement (Cat. 6036) makes the medium more selective for *Pseudomonas spp.* including *Burkholderia cepacia*, previously known as *Pseudomonas cepacia*. Cetrimide, Fucidin and Cephaloridine inhibit Gram positive bacteria and support the growth of *Pseudomonas spp.* (including *P. aeruginosa*), whilst inhibiting most other Gram negative bacteria.

Inoculate and incubate in aerobic conditions at 25 ± 1°C and observe after 44 ± 4 hours. All colonies are suspect *Pseudomonas spp* and are counted as such. All the suspect colonies should be confirmed. Colonies which show a positive oxidase reaction but no glucose fermentation are *Pseudomonas spp.* colonies.

MICROBIOLOGICAL TEST

The following results were obtained from type cultures in the performance of the medium, with the supplement added, after incubation at a temperature of 25 ± 1°C and observed after 44 ± 4 hours.

Microorganisms	Growth	Recovery
<i>Escherichia coli</i> ATCC 25922	Inhibited	-
<i>Pseudomonas aeruginosa</i> ATCC 27853	Good	≥ 70%
<i>Pseudomonas aeruginosa</i> ATCC 25819	Good	≥ 70%
<i>Pseudomonas aeruginosa</i> ATCC 25608	Good	≥ 70%

BIBLIOGRAPHY

Goto, S., and S. Enomoto. 1970. Nalidixic Acid Cetrimide Agar. A New Selective Plating Medium for the Selective Isolation of *Pseudomonas aeruginosa*. Japan. J. Microbiol. 14: 65 - 72.

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.

ISO 13720. Meat and meat products - Enumeration of *Pseudomonas spp.*



STORAGE

Once opened keep powdered medium closed to avoid hydration.

