Technical Data

CFC HiCynth™ Agar Base (Cephalothin- Sodium Fusidate-Cetrimide HiCynth™ Agar)

MCD1848

Intended use

Recommended for selective isolation of *Pseudomonas* species. The composition and performance of this medium are as per the specification laid down in ISO 13720:2010

Composition**

Ingredients	Gms / Litre
HiCynth™ Peptone No.2*	26.000
Potassium sulphate	10.000
Magnesium chloride	1.400
Agar	15.000
Final pH (at 25°C)	7.2±0.2

**Formula adjusted, standardized to suit performance parameters

* -Chemically Defined peptones

Directions

Suspend 52.4 grams in 1000 ml purified / distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C and aseptically add sterile rehydrated contents of two vials of Modified CFC Selective Supplement (FD281). Mix well and pour into sterile Petri plates.

Note : Do not keep the molten agar for longer than 4 hours.

Principle And Interpretation

CFC Agar Base is prepared according to ISO (5) which contains magnesium chloride and potassium sulphate to enhance pigment production. It is recommended for enumeration of *Pseudomonas* species from meat and meat products including poultry by means of colony count technique after incubation at 25ºC for 48 hours. Goto and Enomoto (1) formulated CetriNix supplement for the selective isolation of *Pseudomonas aeruginosa* from clinical specimens. Lowbury and Collins (4) studied cetrimide as a selective agent. CetriNix supplement suppresses *Klebsiella, Proteus* and *Providencia* species. Modified CFC Selective Supplement was formulated as per the recommendations of ISO (5) for selective isolation of *Pseudomonas* species. It contains cephalothin, sodium fusidate and cetrimide. CFC HiCynth™ Agar Base is prepared by replacing animal and vegetable peptones with chemically defined peptones to avoid BSE/TSE risks associated with animal peptones.

Type of specimen

Food samples.

Specimen Collection and Handling

For food samples, follow appropriate techniques for sample collection and processing as per guidelines (5,6).
After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions

Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations

1. Further biochemical tests are needed for final identification of the isolated organisms.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control

Appearance

Cream to yellow homogeneous free flowing powder

Gelling

Firm, comparable with 1.5% Agar gel

Colour and Clarity of prepared medium

Yellow coloured clear to slightly opalescent gel forms in Petri plates

Reaction

Reaction of 5.24% w/v aqueous solution at 25°C. pH : 7.2±0.2

pH

7.00-7.40

Cultural Response

Cultural characteristics observed with added Modified CFC Selective Supplement (FD281), after an incubation at 24-26° C for 40-48 hours.

Organism	Inoculum (CFU)	Growth	Recovery
Pseudomonas aeruginosa ATCC 27853 (00025*)	50 -100	luxuriant	>=50 %
Pseudomonas fluorescens ATCC 13525 (00115*)	50 -100	luxuriant	>=50 %
Pseudomonas fragi ATCC 4973 (00116*)	50 -100	luxuriant	>=50 %
Staphylococcus aureus subsp. aureus ATCC 25923 (00034*)	>=10^4	inhibited	0%
Proteus vulgaris ATCC 13315	>=10^4	inhibited	0%
Escherichia coli ATCC 25922 (00013*)	>=10^4	inhibited	0%
Escherichia coli ATCC 8739 (00012*)	>=10^4	inhibited	0%

Key : (*) - Corresponding WDCM numbers

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle inorder to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition Seal the container tightly after use. Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (2,3).

Reference

1. Goto S. and Entomoto S., 1970, Jap. J. Microbiol., 14:65.
2. Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.
3. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.

4. Lowbury E.J. and Collins A.G., 1955, Clin. Path., 8:47.
5. Meat and meat products. Enumeration of presumptive *Pseudomonas* spp., BS EN ISO 13720:2010
6. Salfinger Y., and Tortorello M.L., 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.

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