PRODUCT SPECIFICATION SHEET

Columbia Agar Plate (RP004H)

Intended Use

Medium for selective isolation and subculture of Clostridium sporogenes in compliance with the harmonized method of USP/EP/BP/JP.

Product Summary and Explanation

Principles of the Procedure

Cetrimide Agar Base contains gelatin peptone which supplies the nutrients necessary to support growth. The production of pyocyanin is stimulated by the magnesium chloride and potassium sulfate in the medium. Cetrimide is a quaternary ammonium, cationic detergent compound, which is inhibitory to a wide variety of bacterial species including *Pseudomonas* species other than *P. aeruginosa*. Cetrimide Agar Base is supplemented with 1% glycerol as a source of carbon.

Formula / Liter

Ingredients	Gms / Liter
Pancreatic digest of gelatin	20.00
Magnesium chloride	1.40
Potassium sulphate	10.00
Cetrimide	0.30
Agar	15.00
Final pH: 7.2 ± 0.2 at 25°C	
Formula may be adjusted and/or supplemented as required to meet performance specifications	

Precautions

1. Prepared plated media are For *in vitro* Diagnostic Use or For Laboratory Use as labeled.
2. Directions for use should be read and followed carefully.
3. If excessive moisture is observed, invert the bottom over an off-set lid and allow to air dry in order to prevent formation of a seal between the top and bottom of the plate during incubation.
4. Observe aseptic techniques and established precautions against microbiological hazards throughout all procedures, since it must be assumed that all specimens/samples collected might contain infectious microorganisms.

Product Deterioration

Do not use plates if they show evidence of microbial contamination, discoloration, drying, cracking or other signs of deterioration.

Quality Control Specifications

Appearance	Sterile Cetrimide Agar in 90mm plates
Colour	Light amber coloured medium
Reaction	pH : 7.2 ± 0.2 at 25°C
Quantity of medium	25ml of medium in 90mm plates

Sterility Check: Passes release criteria.

Cultural response	Cultural response was observed after an incubation at 30-35°C for specified time. Recovery rate is considered as 100% for bacteria growth on Soyabean Casein Digest Agar.

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Expected Cultural Response:

Sr. No.	Organisms	Results to be achieved				
		Inoculum (CFU)	Growth	Observed Lot value (CFU)	Recovery	Incubation Temperature & Time
1.	*Pseudomonas aeruginosa* ATCC 9027	50 - 100	good-luxuriant	25 -100	>=50 %	30-35°C <=18 hrs
2.	*Escherichia coli* ATCC 8739	>=10^3	inhibited	0	0%	30-35°C >=72 hrs
3.	*Pseudomonas aeruginosa* ATCC 27853	50 - 100	good-luxuriant	25 - 100	>=50 %	30-35°C 18-24 hrs
4.	*Pseudomonas aeruginosa* ATCC 25668	50 - 100	good-luxuriant	25 - 100	>=50 %	30-35°C 18-24 hrs
5.	*Stenotrophomonas maltophila* ATCC 13637	>=10^3	inhibited	0	0%	30-35°C >=72 hrs
6.	*Escherichia coli* ATCC 25922	>=10^3	inhibited	0	0%	30-35°C >=72 hrs
7.	*Escherichia coli* NCTC 9002	>=10^3	inhibited	0	0%	30-35°C >=72 hrs
8.	*Staphylococcus aureus* ATCC 6538	>=10^3	inhibited	0	0%	30-35°C >=72 hrs
9.	*Staphylococcus aureus* ATCC 25923	>=10^3	inhibited	0	0%	30-35°C >=72 hrs
10.	*Salmonella typhimurium* ATCC 14028	>=10^3	inhibited	0	0%	30-35°C >=72 hrs
11.	*Proteus mirabilis* ATCC 29906	>=10^3	inhibited	0	0%	30-35 °C >=72 hrs

The organisms listed are the minimum that should be used for quality control testing.

Test Procedure

1. For the isolation of *P.aeruginosa*, plates of Cetrimide Agar should be inoculated from non-selective medium such as Brain Heart Infusion Broth (DM811) or Soyabean Casein Digest Medium (DM277).
2. If the count is high, the test sample can be directly inoculated onto Cetrimide Agar.
3. Refer to appropriate references for standard test procedures.

Results

1. Colonies that are surrounded by a blue-green pigment and fluoresce under short wavelength (254 nm) ultraviolet light may be presumptively identified as *Pseudomonas aeruginosa*. Note, however, that certain strains of *P. aeruginosa* may not produce pyocyanin.
2. Other species of *Pseudomonas* do not produce pyocyanin, but fluoresce under UV light.
3. Most non-Pseudomonas species are inhibited, and some species of *Pseudomonas* may also be inhibited.
4. Gram staining, biochemical tests and serological procedures should be performed to confirm findings.

Storage

On receipt, store plates at 20-25°C.

Expiration

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Refer to the expiration date stamped on the pack. Prepared plates stored in their original sleeve wrapping at 20-25°C until just prior to use may be inoculated up to the expiration date and incubated for recommended incubation times.

Product Disposal

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

Limitations of the Procedure

1. The type of peptone used in the base may affect pigment production.
2. No single medium can be depended upon to exhibit all pigment-producing *P. aeruginosa* strains.
3. Occasionally some enterics will exhibit a slight yellowing of the medium; however, this coloration is easily distinguished from fluorescin production since this yellowing does not fluoresce.
4. Some nonfermenters and some aerobic sporeformers may exhibit a water-soluble tan to brown pigmentation on this medium. *Serratia* strains may exhibit a pink pigmentation.
5. Studies of Lowbury and Collins showed *P. aeruginosa* may lose its fluorescence under UV light if the cultures are left at room temperature for a short time. Fluorescence reappears when plates are reincubated.
6. Consult appropriate texts for detailed information and recommended procedures.

Packaging
Product Name : Cetrimide Agar Plate
Product Code : RP002
Available Pack sizes : Pack of 10 plates

References

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Further Information

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