CURE LIFE SCIENCES
LAB TO LIFE

Technical Data Sheet

Modified Pseudomonas Selective Agar with Cetrimide (Twin Pack)

CLS-DCM-MPSA-01

Principle

Modified pseudomonas selective agar with cetrimide is composed of skimmed milk powder, peptone, sodium chloride, yeast extract, cetrimide and agar. Skimmed milk is source of casein, hydrolyzed by Pseudomonas to form yellow to green diffusible pigmented colonies. Peptone provides nitrogen and amino acids and necessary nutrients. Yeast extract is source of carbon, nitrogen, vitamins and required growth factors. Sodium chloride essential ions. Cetrimide acts as a quaternary ammonium, cationic detergent that causes release of nitrogen and phosphorus from bacterial cells other than *P. aeruginosa*.

Use: Recommended for the detection and enumeration of *Pseudomonas aeruginosa.*

Contents*

Ingredients	**Gram/Litre**
Part A:	
Skimmed Milk Powder	100.00
Part B:	
Peptone	2.500
Sodium Chloride	1.250
Yeast Extract	0.750
Cetrimide	0.300
Agar	15.000
pH at 25˚C	7.3 ±0.2

* Formula adjusted for optimum performance and parameters

Directions:

Part A: Dissolve 100.00 grams in 750 ml distilled water, boil to dissolve the medium completely and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 min.

Part B: Dissolve 19.80 grams in 250 ml distilled water, boil to dissolve the medium completely and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 min.

Mix part A and B, homogenize by gentle shaking cool it to 42-45 °C and distribute aseptically in petri plates. Ensure complete solidification and inoculate test sample aseptically.

Specimens types analyzed

Water samples, food and dairy samples, pharmaceutical samples, clinical and non-clinical samples etc.

Precautions to be taken

These microbial media are intended for the in-vitro use only. All the handling, experiments, storage, and discarding should be performed with the help of skilled and knowledgeable technicians and as per the established guidelines. The material should be disposed only after proper sterilization by autoclaving. Please go through the MSDS of the media to avoid any accidents or in emergency.

Performance and Evaluation

The expected performance of the medium is liable to use as per the direction on the label when stored at optimum conditions and within expiry date.

Quality Control

Appearance	Part A: Off white color free flowing homogeneous powder Part B: Beige colored free flowing, homogeneous powder
Reaction of 10.00 % of Part A & 1.98% of Part B solution	7.3 ±0.2 at 25 ˚C
pH	7.10- 7.50
Gelling	Firm comparable with 2% agar gel
Color and clarity of ready medium	Light amber colored opalescent gel
Growth Promotion properties	Best at ≤ 100 CFU at 32-37 ºC for 18-72 h
Indicative properties	Optimum at ≤ 100 CFU at 32-37 ºC for 18-48 h
Negative control	Performed using sterile distilled water

Different Microbial Response

Organism	Inoculum	Growth	Pigment	Incubation Temperature	Incubation period
Pseudomonas aeruginosa (ATCC 27853)	50-100	Luxurious	Greenish blue	33-37 ℃	18-48 h
Escherichia coli (ATCC 8739)	50-100	Inhibited	-	33-37 ℃	18-48 h

Storage and Shelf Life

Hygroscopic; keep container tightly closed. Store in cool dry place.

Disposal: To avoid the contamination or propagation of any hazardous microbes the used, unusable or modified preparation of this product must be disposed after autoclaving after completion of task.

Reference

1. Atlas, R. M. (2005). *Handbook of media for environmental microbiology*. CRC press.
2. Baird R.B., Eaton A.D., and Rice E.W., (Eds.), (2015), *Standard Methods for the Examination of Water and Wastewater*, 23rd Ed., APHA, Washington, D.C.
3. *Difco Manual* (1998). 11th Edition. Difco Laboratories., Division of Becton Dickinson and Company, Sparks, Maryland, USA.