Chaitanya Group Of Industries

ReadyMED®
Dehydrated Cell Culture Media

Technical Data Sheet

Clostridial Agar RDM-CA-01

Principle
Clostridial agar is composed of tryptone, soya peptone, dextrose, sodium chloride, sodium thioglycolate, L-Cystine, sodium formaldehyde sulphoxylate, neomycin sulphate, sodium azide and agar. Tryptone and soya peptone provide nutrients and cofactors required for growth of clostridia. Dextrose is carbon source. L-Cystine is an amino acid enhances clostridial growth, Sodium chloride, sodium thioglycolate, L-cystine, sodium formaldehyde sulphoxylate maintain oxidation reduction potential of medium. Neomycin sulphate and sodium azide inhibits the growth of contaminating bacteria like Proteus, Pseudomonas and Bacillus. Agar is solidifying agent.

Use: Recommended for the selective isolation of pathogenic *Clostridia*.

Contents*

Ingredients	Gram/Litre
Tryptone	17.000
Soya Peptone	3.000
Dextrose	6.000
Sodium Chloride	2.500
Sodium Thioglycolate	1.800
L-Cystine	0.250
Sodium Formaldehyde Sulphoxylate	1.000
Neomycin Sulphate	0.150
Sodium Azide	0.200
Agar	15.000
pH at 25˚C	7.0 ±0.2

* Formula adjusted for optimum performance and parameters

Directions: Dissolve 47.00 grams in 1000 ml distilled water, boil to dissolve the medium completely and sterilize by autoclaving at 15 lbs. pressure (121°C) for 15 min, cool it to 42-45 °C and distribute aseptically in petri plates. Ensure complete solidification and inoculate test sample aseptically.

Specimens types analyzed
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	Light beige colored free flowing, homogeneous powder
Reaction of 4.70% solution	7.0 ±0.2 at 25 ˚C

pH	6.80- 7.20
Gelling	Firm comparable with 1.5% agar gel
Color and clarity of ready medium	Light amber colored slightly 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	Recovery	Incubation Temperature	Incubation period
Clostridium sporogeneses (ATCC 19404)	50-100	Luxurious	60-70%	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. American Public Health Association (1978) , *Standard Methods for the Examination of Dairy Products*, 14th Ed., Washington D.C.
2. Atlas, R. M. (2005). *Handbook of media for environmental microbiology*. CRC press.
3. *Difco Manual* (1998). 11th Edition. Difco Laboratories., Division of Becton Dickinson and Company, Sparks, Maryland, USA.
4. 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.

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