

Reinforced Clostridial Agar Plate

Intended Use

Reinforced Clostridial Agar Plate is used for the cultivation and enumeration of Clostridia and other anaerobes.

Summary

Hirsch and Grinstead formulated Semisolid Reinforced Clostridial Medium and found that Clostridia from small amount of samples could be grown well on this medium with higher viable cell counts. This medium can also be used for growing anaerobic and facultative bacteria. Barnes *et al.*, used a solid (agar) version of the medium to develop vegetative cells in assays of *Clostridium perfringens*.

Principle

Reinforced Clostridial Agar Plate contains casein enzymic hydrolysate and beef extract as sources of carbon, nitrogen, vitamins and minerals. Yeast extract supplies B-complex vitamins which stimulate bacterial growth. Dextrose is the carbohydrate source. Sodium chloride maintains the osmotic balance. In low concentrations, soluble starch detoxifies metabolic byproducts. Cysteine hydrochloride is a reducing agent. Sodium acetate acts as a buffer.

Formula*

Ingredients	g/L
Beef Extract	10.0
Casein Enzymic Hydrolysate	10.0
Yeast Extract	3.0
Sodium Chloride	5.0
Dextrose	5.0
Sodium Acetate	3.0
Starch, Soluble	1.0
L-Cysteine Hydrochloride	0.5
Agar	13.5

*Adjusted to suit performance parameters.

Additional Material Required

Anaerobic Container / Anaerobic Culture Jar, Anaerobic Gas Pack, Anaerobic Indicator Strip, Bacteriological Incubator.

Instructions for use

1. Open the sterile pack and remove Reinforced Clostridial Agar Plate aseptically.
2. Inoculate/streak and Incubate the plate in inverted position as per standard procedure.

Reading and interpretation

1. After incubation, observe the microbial growth and count the colonies.
2. Interpretation is assured by user.
3. User is responsible to define the action limits as per standard guidelines and alert limits on the basis of trend analysis & other relevant data.

Quality Control

Appearance: Gel with smooth, even surface, without any cracks, bubbles and drying or shrinking of media.

Colour of Medium: Light amber coloured, very slightly opalescent gel in petriplates.

Quantity of Medium: 29 ± 2 g in 90 mm petriplate.

pH at 25°C ± 2°C: 6.8 ± 0.2

Growth Promotion Test: Growth promotion test is carried out in accordance with the harmonized method of USP/EP/JP and growth is observed after an incubation at 30°C-35°C for 48-72 hours under anaerobic condition.

Growth Promoting Properties: The test results observed are within the specified temperature and shortest period of time, inoculating ≤ 100 cfu of appropriate microorganism.

Organism (ATCC)*Clostridium sporogenes* (11437)*Clostridium sporogenes* (19404)**Growth**

Good

Good

Interpretation of Results

For Good growth, growth obtained on test media should not differ by a factor greater than 2 from calculated value for a standardized inoculum.

Storage and Shelf Life

1. Store between 15°C-25°C to avoid water condensation. Condensation can be prevented by avoiding quick temperature shifts and mechanical stress.
2. Under optimal conditions, the medium has a shelf life of 3 months. Use before expiry mentioned on the label.

Reference

1. Hirsch A. and Grinstead C., 1954, J. Dairy Res. 21:101.
2. Barnes E. M., Despaul J. E. and Ingram M., 1963. J. Appl. Bacteriol. 26:415.
3. Barnes E. M. and Ingram J. E., 1956. J. Appl. Bacteriol. 19:117.
4. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:**Cat No.**

205180270100

Product

Reinforced Clostridial Agar Plate

Pack Size

100 Plates

Disclaimer

Information provided is based on our inhouse technical data on file, it is recommended that user should validate at his end for suitable use of the product.
