



Modified Reinforced Clostridial Broth (ATCC Medium 2107) M2107

Intended use

Recommended for the cultivation and enumeration of Clostridia and other anaerobes.

Composition**

Ingredients	Gms / Litre
Tryptose	10.000
HM Peptone B#	10.000
Yeast extract	3.000
Dextrose (Glucose)	5.000
Sodium chloride	5.000
Starch, soluble	1.000
L-Cysteine hydrochloride	0.500
Sodium acetate	3.000
Resazurin	0.001
Final pH (at 25°C)	6.8±0.2

**Formula adjusted, standardized to suit performance parameters

- Equivalent to Beef extract

Directions

Suspend 37.50 grams in 1000 ml purified / distilled water. Heat if necessary to dissolve the medium completely.

Dispense into sterile tubes or flasks as desired. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Principle And Interpretation

Reinforced Clostridial Broth is formulated by Hirsch and Grinsted (2). Modified Reinforced Clostridial Broth is a modification of this medium wherein agar is omitted and resazurin is added as an indicator. This medium is also recommended by ATCC for cultivation of Clostridium species (1). Other spore forming anaerobes, Streptococci and *Lactobacilli* also grow in this media. This is a nonselective enrichment media.

Tryptone, yeast extract, HM Peptone B, starch, L-cysteine and sodium acetate provide all the necessary nutrients for the growth of Clostridia. Dextrose is a fermentable carbohydrate in the medium while sodium chloride maintains osmotic equilibrium.

Type of specimen

Isolated Microorganism

Specimen Collection and Handling

For pure samples, enrich as per ATCC guidelines

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. Some *Clostridium* species may show poor growth due to nutritional variations.
2. Further biochemical tests must be carried out for complete identification.

Performance and Evaluation

Please refer disclaimer Overleaf.

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

Colour and Clarity of prepared medium

Light amber coloured clear solution in tubes.

Reaction

Reaction of 3.75% w/v aqueous solution at 25°C . pH : 6.8±0.2

pH

6.60-7.00

Cultural Response

Cultural characteristics observed in an anaerobic atmosphere after an incubation at 35 - 37°C for 24 - 48hours.

Organism	Inoculum (CFU)	Growth
<i>Clostridium sporogenes</i> ATCC 11437	50 -100	good - luxuriant
<i>Clostridium sporogenes</i> ATCC 19404 (00008*)	50 -100	good - luxuriant
<i>Clostridium perfringenes</i> ATCC 13124 (00007*)	50 -100	good - luxuriant

Key : (*) Corresponding WDCM numbers.

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 15-25°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order 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 sample must be decontaminated and disposed of in accordance with current laboratory techniques (3,4).

Reference

1. ATCC Medium: 2107 Modified Reinforced Clostridial , www.atcc.org
2. Hirsch and Grinstead, 1954, J. Dairy Res., 21:101.
3. Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.
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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Disclaimer :

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