

Technical Data Sheet

Reinforced Clostridial Medium (RCM)

acc. harm. EP/USP/JP

Ordering number: 1.05411.0500

Reinforced Clostridial Medium (RCM) was proposed by Hirsch and Grinsted (1954) for the cultivation and enumeration of *Clostridia*, other anaerobes and facultative microorganisms in foodstuffs and other materials.

This medium complies with the specifications given by the harmonized methods of EP, USP, JP for Microbial Examination of Non-sterile Products: Tests for Specified Microorganisms.

Mode of Action

This culture medium is free from inhibitors and contains cysteine as a reducing agent. According to Hirsch and Grinsted (1954), Polymyxin B can be added to inhibit Gram-negative bacteria. See also Reinforced Clostridial Agar (RCA, 1.05410).

Typical Composition

Meat Extract	10 g/l
Peptone	10 g/l
Yeast Extract	3 g/l
D(+)-Glucose	5 g/l
Starch	1 g/l
NaCl	5 g/l
C ₂ H ₃ NaO ₂	3 g/l
L-Cysteinium Chloride	0.5 g/l
Agar-Agar	0.5 g/l

Preparation

Dissolve 38 g/l. Dispense into test tubes. Autoclave (15 min at 121 °C). Cool. If required add 0.02 g Polymyxin B/l in form of an aqueous solution and mix.

The appearance of the medium in the tubes is clear and yellowish.

The pH value at 25 °C is in the range of 6.6-7.0.

Experimental Procedure and Evaluation

After inoculation it is advised to cover the medium with a layer of paraffin viscous or agar.

Incubation: 48 h at 30-35 °C anaerobically.

Count the colonies which have grown and, if necessary, perform further tests.

Storage

The product can be used for sampling until the expiry date if stored upright, protected from light and properly sealed at +15 °C to +25 °C.

After first opening of the bottle the content can be used up to the expiry date when stored dry and tightly closed at +15 °C to +25 °C.

Disposal

Please mind the respective regulations for the disposal of used culture medium (e.g. autoclave for 20 min at 121 °C, disinfect, incinerate etc.).

Quality Control

Control Strains	ATCC #	Inoculum CFU	Incubation	Expected Results
<i>Clostridium sporogenes</i>	11437	≤ 100	48 h at 30-35 °C, anaerobic	Growth
<i>Clostridium perfringens</i>	10543	≤ 100	48 h at 30-35 °C, anaerobic	Growth
<i>Clostridium sporogenes</i>	19404	≤ 100	48 h at 30-35 °C, anaerobic	Growth
<i>Clostridium novyi</i>	17861	≤ 100	48 h at 30-35 °C, anaerobic	Growth
<i>Escherichia coli</i>	25922	≤ 100	48 h at 30-35 °C	Growth

Please refer to the actual batch related Certificate of Analysis.



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Literature

European Directorate for the Quality of Medicines and Healthcare. (2014): The European Pharmacopoeia. 8th Ed. Chapter 2.6.13 Microbiological examination of non-sterile products: Test for specified products. Strasbourg, France.

Hirsch, A. and Grinsted, E. (1954): Methods for the growth and enumeration of anaerobic sporeformers from cheese, with observations on the effect of nisin. J. Dairy Res. **21**: 101-110.

Japanese Ministry of Health, Labour and Welfare. (2011): The Japanese Pharmacopoeia. 16th Ed. Chapter 4.05 Microbial Limit Test II. Microbiological examination of non-sterile products: Test for specified products. Japanese Ministry of Health, Labour and Welfare. Tokyo, Japan.

United States Pharmacopoeia 38 NF 33 (2015): <62> Microbiological examination of non-sterile products: Tests for specified microorganisms.

Ordering Information

Product	Cat. No.	Pack size	Other pack sizes available
Reinforced Clostridial Medium (RCM) for microbiology	1.05411.0500	500 g	
Columbia Agar Base	1.10455.5000	500 g	5 kg
Paraffin viscous	1.07160.1000	1 l	

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