

Reinforced Clostridial Medium (RCM)

Medium 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 recommendations of the harmonized method in the Ph.Eur. 5.6 and the USP 29 (2006).

Mode of Action

See Reinforced Clostridial Agar.

Typical Composition (g/litre)

Meat extract 10.0; Peptone 10.0; yeast extract 3.0; D(+)glucose 5.0; starch 1.0; sodium chloride 5.0; sodium acetate 3.0; L-cysteinium chloride 0.5; agar-agar 0.5

Preparation

Dissolve 38 g/litre, dispense into test tubes, autoclave (15 min at 121 °C). Cool, if required add 0.02 g Polymyxin B/litre in form of an aqueous solution and mix.

pH: 6.8 ± 0.2 at 25 °C.

The prepared medium in the tubes is clear and yellowish.

Experimental Procedure and Evaluation

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

Incubation: 24-48 hours at 35 °C anaerobically.

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

Literature

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

European Pharmacopeia 5.6, Chapter 2.6.13 B (Harmonized Method)

United States Pharmacopeia 29-NF 24, Chapter <62>

Ordering Information

Product	Merck Cat. No.	Pack size
Reinforced Clostridial Medium (RCM)	1.05411.0500	500 g
Paraffin viscous	1.07160.1000	1 l
Polymyxin-B-sulfate	EMD Biosciences	

Quality control

Test strains	Inoculum [CFU]	Growth
<i>Clostridium sporogenes</i> ATCC 11437	10-100	good / very good
<i>Clostridium perfringens</i> ATCC 10453	10-100	good / very good
<i>Clostridium perfringens</i> ATCC 13124	10-100	good / very good
<i>Clostridium sporogenes</i> ATCC 19404	10-100	good / very good
<i>Clostridium novyi</i> 17861	10-100	good / very good
<i>Staphylococcus aureus</i> ATCC 25923	10-100	good / very good
<i>Escherichia coli</i> ATCC 25922	10-100	good / very good