CRAMP Agar Base

M1243

CRAMP Agar Base is used for the cultivation of *Yersinia* species with plasmids.

Composition**

Ingredients	Gms / Litre
Galactose	2.000
Casein acid hydrolysate	2.000
Congo red	0.005
Sodium chloride	2.900
Morpholine propane sulfonic acid	8.400
Ammonium chloride	0.500
Sodium thiosulphate	0.600
Dipotassium phosphate	0.240
Magnesium sulphate	0.0986
Tricine	1.800
Agarose	14.000
Final pH (at 25°C)	5.3±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 32.54 grams in 1000 ml distilled water. Heat if necessary to dissolve the medium completely. Distribute into tubes or flasks. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Principle And Interpretation

Yersinia is a gram-negative bacillus belonging to the family *Enterobacteriaceae* . *Yersinia* is usually nitrate reductase positive, oxidase negative, urease positive and generally has both respiratory and fermentative type of metabolism.

CRAMP (Congo Red Acid Morpholine propane sulfonic acid Pigmentation) Agar Base is used for the cultivation of Yersinia species with plasmids (1). The congo red reaction is used for virulence test of *Yersinia* and to identify Plasmid-bearing colonies (2), since pathogenicity is associated with the presence of plasmids.

Casein acid hydrolysate serves as nitrogen source. Morpholine propane sulfonic acid and tricine are the buffers in the medium. Galactose serves as carbon source. Congo red is the indicator dye in the medium. The salts provide essential ions required by the organism.

Quality Control

Appearance
Light yellow to pink homogeneous free flowing powder

Gelling
Firm, comparable with 1.4% Agarose gel.

Colour and Clarity of prepared medium
Red coloured, clear to slightly opalescent gel forms in Petri plates/tubes

Reaction
Reaction of 3.25% w/v aqueous solution at 25°C. pH : 5.3±0.2

pH
5.10-5.50

Cultural Response
M1243: Cultural characteristics observed after an incubation at 32°C for 24 - 48 hours.

Organism	Inoculum (CFU)	Growth	Recovery

Cultural Response

Yersinia enterocolitica ATCC 27729	50-100	good-luxuriant	>=50%

Storage and Shelf Life

Store below 30°C in tightly closed container and prepared medium at 2-8°C. Use before period on the label.

Reference

1. Vanderzant C. and Splittstoesser D. F., (Eds.), 1992, Compendium of Methods for the Microbiological Examination of Foods, 3rd Ed., APHA, Washington, D.C.
2. Prpic J. K., Robins- Browne R. M. and Davey B., 1983, J. Clinic. Microbiol., 18: 486

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