Rapid Perfringens Medium Base (Twin pack)

M1898

For rapid detection of *Clostridium perfringens* in food.

Composition**

Ingredients	Gms / Litre
Part A	-
Litmus milk powder	70.000
Part B	-
Pancreatic digest of casein	15.13
Yeast extract	8.04
Glucose	10.55
Sodium chloride	4.02
L-Cystine	0.51
Sodium thioglycollate	0.51
Resazurin sodium	0.001
Gelatin	60.000
Peptone	5.000
Dipotassium hydrogen orthophosphate	5.000
Iron (II) sulphate	0.500
Agar	0.755
Final pH (at 25°C)	7.0±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 70 grams of Part A in 500 ml distilled water.Mix well and adjust the pH to 6.8. Sterilize by autoclaving at 15 lbs pressure (121°C) for 5 minutes. Cool to 45-50°C and aseptically add sterile rehydrated contents of one vial of Perfringens Selective Supplement (FD307).

Suspend 110 grams of Part B in 500 ml distilled water.Heat if necessary to dissolve the medium completely.Adjust the pH to 7.1.Dispense 5 ml amount in screw-capped glass tubesSterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.Cool to 45-50°C.Aseptically add 5 ml of previously cooled Part A solution to Part B.Mix well and store at 2-8°C.Before use,liquefy the medium by placing the tubes in a water bath at 45-50°C for 30 minutes.

Principle And Interpretation

Rapid Perfringens Medium Base is formulated by Erickson & Deibel (1). The Mesophilic spore forming anaerobes belonging to the genus *Clostridia* of food concern are Gram-positive,catalase negative, rods of varying sizes.

The medium can be used to initiate growth from small inocula and to obtain the highest viable count of *Clostridia* .Rapid Perfringens Medium Base is a liquid medium with a litmus milk base and is prepared in tubes. Selectivity is provided by the antibiotics Polymyxin B sulfate and neomycin sulfate,coupled with an incubation temperature of 46°C(2).

Quality Control

Appearance
homogeneous free flowing powder

Colour and Clarity of prepared medium
Light Brown coloured Light brown opaque solution in tubes.

Reaction
Reaction of 7.0% w/v of Part A + 11.0% w/v of Part B at 25°C. pH : 6.80±0.2

Cultural Response
Cultural characteristics observed in an anaerobic atmosphere after an incubation at 46°C for 48 hours.

Cultural Response

Organism	Inoculum (CFU)	Growth
Cultural Response		
Clostridium perfringens ATCC 13124	50-100	good - luxuriant with stormy fermentation
Proteus mirabilis ATCC 25933	50-100	good - luxuriant

Storage and Shelf Life

Reference

1. Erickson,J.E. and Deibel,R.H.(1978)New medium for rapid screening and enumeration of ! Clostridium perfringens @ in foods. Appl.Environ.Microbiol.36,567-571. 2.Handbook of Culture Media for Food and Water Microbiology<(>,<)>3rd edition. Edited by Janet E.L. Corry, Gordon D.W. Curtis and Rosamund M. Baird.

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