

C. BOTULINUM ISOLATION AGAR BASE**TM 1154**

For isolation of *Clostridium botulinum* from faecal samples associated with food borne & infant botulism

Composition

Ingredients	g/L
Casein enzymatic hydrolysate	40.00
Agar	20.00
Yeast extract	5.00
Disodium phosphate	5.00
Dextrose	2.00
Sodium chloride	2.00
Magnesium sulphate	0.01

* Dehydrated powder, store in a dry place, in tightly-sealed containers at 24°C and protect from direct Sunlight.

Instructions for use

Dissolve 74.0g in 900 ml distilled water. Gently heat to boil with gentle swirling and dissolve the medium completely. Sterilize by autoclaving at 15 psi (121°C) for 15 minutes. Cool to 50 - 55°C and aseptically add 100ml one vial of Egg Yolk Emulsion (TS 002) and two vials of reconstituted contents of C.B.I. Supplement (TS 104) to the medium. Mix well before pouring into the sterile Petri plates.

Appearance: Light yellow colour, opaque gel

pH (at 25°C): 7.4 ± 0.2

Principle

C. BOTULINUM ISOLATION AGAR BASE is used for isolation of *Clostridium botulinum* from faecal samples associated with food borne & infant botulism. *Clostridium botulinum* is anaerobic, Gram positive, spore forming group of bacteria and are responsible for the food borne disease called botulism. The organism produces a neurotoxin – botulin which causes the disease botulism. Botulinal toxin is heat-labile. Therefore the test samples and cultures should be maintained at refrigeration temperatures. The flaccid muscular paralysis occurs due to the effect of the toxin.

Medium contains Casein enzymatic hydrolysate and Yeast extract are added to provide the carbon, nitrogen and vitamins for the growth of the organisms in the medium. Dextrose as source of carbohydrate and energy. Sodium chloride (to maintain osmotic balance) and Disodium phosphate (buffering agent). Magnesium sulphate helps in cell division, growth and enhances sporulation of microorganisms. Agar is used as a solidifying agent.

Supplement Egg Yolk Emulsion helps in detecting lecithinase, lipase and proteolytic activity. The antibiotic supplement contains broad spectrum antibiotics; Cycloserine, Sulphamethoxazole and Trimethoprim makes the medium very selective.



PRODUCT DATA SHEET

Microbiological parameters (Growth promotion test)

Cultural characteristics observed with added supplements after inoculation (10^3 CFU/ml) and incubation in anaerobic condition at 35 – 37°C for 48 hours.

Test strain	ATCC	Inoculum (CFU/ml)	Growth	Lecithinase activity
<i>Clostridium botulinum</i>	25763	10^3	Luxuriant	Positive (opaque zone around the colonies)

References

1. American Type Culture Collection, Manassas, Va. U.S.A.
2. Finegold S. M. and Baron E. J. 1986. Bailey and Scotts Diagnostic Microbiology, 7th Ed., The C.V. Mosby Company, St. Louis.
3. Vanderzant C. and Splittstoesser D. F., (Eds.). 1992. Compendium of Methods for the Microbiological Examination of foods, 3rd Ed., APHA, Washington, D.C.