IRGASAN TICARCILLIN AND POTASSIUM CHLORATE BROTH (ITC BROTH) ISO 10273

CAT Nº: 1361

For the selective enrichment of *Yersinia enterocolitica*

FORMULA IN g/l

Anhydrous Magnesium Chloride	28.10	Yeast Extract	1.0
Enzymatic Casein Digest	10.00	Malachite Green	0.01
Sodium Chloride	5.00		

Final pH 6.9 ± 0.2 at 25ºC

PREPARATION

Suspend 44.0 grams of the medium in one liter of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Sterilize in autoclave at 121ºC for 15 minutes. Cool to 45-50ºC and aseptically add two vials of ITC Supplement (Cat. 6051), previously reconstituted in 8 ml of sterile distilled water each. Homogenize gently and dispense into sterile containers. The prepared medium should be stored at 2-8°C. The color is blue-green.

The dehydrated medium should be homogeneous, free-flowing and light beige in color. If there are any physical changes, discard the medium.

ITC Supplement (Cat. 6051)
(Composition each vial for 500 ml)
Irgasan..... 0.5 mg
Ticarcillin.....0.5 mg
Potassium Chlorate.....500 mg

USES

ITC BROTH BASE (IRGASAN TICARCILLIN AND POTASSIUM CHLORATE) is recommended by ISO 10273 as a selective enrichment broth for the detection of the human pathogenic strain of *Yersinia enterocolitica* in food and water samples.

Enzymatic Casein Digest provides nitrogen, vitamins, minerals and amino acids essential for growth. Yeast extract is a source of vitamins, particularly of the B-group essential for bacterial growth. Magnesium chloride and Malachite Green, make the broth highly selective. Irgasan inhibits Gram-positive Bacteria, Ticarcillin has bactericide on Gram-negative and Gram-positive bacteria and Potassium Chlorate has a disinfecting property.

From those tubes where turbidity (growth) is observed, inoculate and incubate for 48 hours at 25°C on Salmonella Shigella Agar w/ Sodium Desoxycholate & Calcium Chloride (SSDC) (Cat. 1360) to obtain isolated colonies from which a confirmation will be carried out.

MICROBIOLOGICAL TEST

The following results were obtained from type cultures in the performance of the medium after incubation at a temperature of 30°C and observed after 24-48 hours

Microorganisms	Growth
Yersinia enterocolitica ATCC 23715	Good
Yersinia enterocolitica ATCC 9610	Good
Escherichia coli ATCC 25922	Inhibited

Bacillus cereus ATCC 11778	Inhibited

According ISO 11133 48h/25 ºC (Productivity, Selectivity and Specificity)

Microorganisms	Inoculum (cfu/ml)	Productivity Semi quantitative	Selectivity	Specificity Semi quantitative
Yersinia enterocolitica ATCC 23715	$10^3 10^4$	> 10		Pink
Pseudomonas aeruginosa ATCC 27853	10^4		(TSA) Inhibited	

Media Productivity and Specificity.- SSDC

BIBLIOGRAPHY

ISO 10273:2003 Microbiology of food and animal feeding stuffs - Horizontal method for the detection of presumptive pathogenic *Yersinia enterocolitica*

STORAGE

Once opened keep powdered medium closed to avoid hydration.