

# ITC (Irgasan Ticarcillin Chlorate) Broth



Medium used for the isolation and cultivation of *Yersinia enterocolitica*.

\*Equally use with MFDS(MB-I3064K).

## • CONTENTS (Liter)

Enzymatic Digest of Casein	10.0 g
Yeast Extract	1.0 g
Magnesium Chloride Anhydrous**	28.1 g
Sodium Chloride	5.0 g
Malachite Green	0.01 g
Final pH = 6.9 ± 0.2 at 25°C	

\*\*Equivalent 60.0 G Magnesium Chloride Hexahydrate

## • PROCEDURE

Suspend 44.11 G of powder in 980 mL of distilled or deionized water (This formulation causes a slight exothermic reaction when mixed with water). Heat to boiling until completely dissolved. Sterilize by autoclave at 121°C for 15 minutes. Cool to 45 - 50°C in water bath. Aseptically add 2 vials of ITC Broth supplement A (MB-I3062) and add 2 vials of ITC supplement B (MB-I3063). Mix well. Pour into tubes.

### ITC Broth supplement A

1 vial contents (each vial is sufficient for 500 mL of medium)

Ticarcillin	0.0005 g
Irgasan (Triclosan)	0.0005 g

### ITC Broth supplement B

1 vial contents (each vial is sufficient for 500 mL of medium)

Potassium Chlorate	0.5 g
--------------------	-------

## • INTERPRETATION

ITC (Irgasan Ticarcillin Chlorate) Broth is a medium used for the isolation and cultivation of *Yersinia enterocolitica*. Enzymatic digest of casein and yeast extract provide carbon, nitrogen, vitamins and minerals. Magnesium chloride anhydrous makes the medium selective. Sodium chloride maintains the osmotic balance. Malachite green and irgasan inhibit Gram-positive bacteria. Ticarcillin inhibits Gram-positive and Gram-negative bacteria. Potassium chlorate has a disinfecting property.

## • TECHNIC

Inoculate the specimen using a sterile needle to the medium. Incubate at 25°C for 48 hours. Refer appropriate references for recommended test procedure.

## • QUALITY CONTROL FOR USE

### Dehydrated medium

Appearance: free-flowing, homogeneous

Color: greenish light beige

### Prepared medium

Appearance : clear

Color: light bluish green

Incubation conditions: 25°C / 48 hours

Microorganism	ATCC	Growth
<i>Yersinia enterocolitica</i>	23715	good
<i>Escherichia coli</i>	25922	inhibited
<i>Staphylococcus aureus</i>	25923	inhibited

## • WARNING AND PRECAUTIONS

Check the label before opening the container and follow appropriate microbiological laboratory procedures. Wear protective gloves, protective clothing, safety glasses, and face protection. Safety instructions can be found in Material Safety Data Sheet (MSDS).

## • PERFORMANCE AND EVALUATION

Performance of the medium can be expected when used according to the directions on the label within the recommended temperature.

## • STORAGE AND SHELF LIFE

The powder is very hygroscopic. Store in the provided container according to the temperature indicated on the container surface and store the prepared medium at a temperature of 2 to 8°C. Use within the expiration date indicated on the label and store in a dry and well-ventilated place. The product can be used until the stated expiration date.

## • REFERENCES

1. Vanderzant C. and Splitterstoesser D. (Eds.), Compendium of Methods of Microbiological Examinations of Foods, 2001, 4<sup>th</sup> Ed., APHA, Washington, D.C.
2. International Organization for Standardization (ISO), Microbiology of food and animal feeding stuffs - Horizontal method for the detection of presumptive pathogenic *Yersinia enterocolitica*. 2003, Draft ISO/DIS 10273.
3. Refer to the MFDS.

## • PACKAGE

Cat. No : MB-I3064 ITC (Irgasan Ticarcillin Chlorate) Broth	500 G
--	-------