Shigella Broth

Medium is used for the isolation and cultivation of *Shigella* species from food.

• CONTENTS (Liter)

Tryptone	20.0 g
Sodium Chloride	5.0 g
Dipotassium Phosphate	2.0 g
Monopotassium Phosphate	2.0 g
Dextrose	1.0 g
Tween 80	1.5 g

Final pH = 7.0 ± 0.2 at 25°C.

• PROCEDURE

Suspend 31.5 G of powder in 1 L of distilled or deionized 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 Shigella Broth supplement (MB-S0829). Mix well. Dispense in tubes.

Shigella Broth supplement

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

Novobiocin	0.25 mg

• INTERPRETATION

Shigella Broth is a liquid culture medium that compiles the ISO 21567:2004 standard for the detection of *Shigella* spp. in food and animal feeding stuffs. It is used in the activation and dilution of the sampled bacteria, as the selective enrichment step. Tryptone provides nitrogen, carbon, minerals and vitamins for growth of microorganisms. Sodium chloride maintains osmotic balance. Phosphates are buffering agent. Dextrose provides carbohydrate. Tween 80 inhibits the growth of accompanying microflora. Novobiocin is inhibitory for gram-positive bacteria.

• TECHNIC

Inoculate the specimen with stab using a sterile needle to the medium. Shake gently for spreading microorganism. Incubate at 36 ± 1°C for 18 - 24 hours. Refer appropriate references for recommended test procedure.

• QUALITY CONTROL FOR USE

Dehydrated medium
Appearance: free-flowing, homogeneous.
Color: cream to beige.
Prepared medium
Appearance: clear with no precipitate.
Color: light amber.
Incubation conditions: 35 ± 2 °C / 18 - 24 hours

Microorganism	ATCC	Inoculum CFU	Growth
Shigella flexneri	12022	50-100	good
Staphylococcus aureus	25923	≥10^3	inhibited

• STORE

The powder is very hygroscopic. Store the powder at room temperature, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until signs of deterioration or contamination are evident. Store prepared medium at 2-8°C.

• REFERENCES

1. Hale T.L., Keusch G.T., 1996, shigella. In: Barons Medical Microbiology (Barron S et al, Eds.), 4th Ed., Univ of Texas Medical Branch.
2. Atlas R.R., 1997, Handbook of Microbiological Media 2nd Edition, CRC Press, Boca Raton, New york, London, Tokyo.

• PACKAGE

Cat. No : MB-S0834 Shigella Broth	500 G