Baird Parker Broth

Medium used for the detection and enumeration of *Staphylococcus aureus* from foods.

• CONTENTS (Liter)

Tryptone	10.0 g
Beef Extract	5.0 g
Yeast Extract	1.0 g
Glycine	12.0 g
Sodium Pyruvate	10.0 g
Lithium Chloride Hexahydrate	5.0 g

Final pH = 7.2 ± 0.2 at 25°C.

• PROCEDURE

Suspend 43.0 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 50 ml of Egg Yolk Tellurite Emulsion (MB-E1863) for observed lecithinase reaction or add 10 vials of R.P.F. supplement (MB-R1857) for directly observed coagulase reaction to the medium. Mix well. Dispense in tubes.

R.P.F. supplement

1 vial contents (each vial is sufficient for 100 mL of medium)

Bovine Fibrinogen	0.5 g
Rabbit Plasma	2.5 g
Trypsin Inhibitor	0.0025 g
Potassium Tellurite	0.0025 g

• INTERPRETATION

Baird Parker Broth is a selective medium used for the isolation of positive coagulase Staphylococci from foods. Tryptone and beef extract are the carbon and nitrogen sources. Yeast extract provides vitamin B complex that stimulate bacterial growth. Glycine and sodium pyruvate stimulate growth of Staphylococci. Lithium chloride is selective agent. Egg yolk tellurite emulsion is source of lecithin that helps observe the lecithinase reaction of coagulase, positive Stapylococci. Agar is the solidifying agent. Coagulase reaction is observed with opaque halo when use only R.P.F supplement to the medium.

• TECHNIC

Inoculate the specimen with stab using a sterile needle to the medium. Shake gently for spreading microorganism. Incubate at 35 ± 2°C for 18 - 24 hours up to 48 hours. Refer appropriate references for recommended test procedure.

• QUALITY CONTROL FOR USE

Dehydrated medium
Appearance: free-flowing, homogeneous.
Color: light amber.
Prepared medium
Appearance: clear with no precipitate.
Color: yellow.
Incubation conditions: 35 ± 2℃ / 18 – 24 up to 48 hours

Microorganism	ATCC	Inoculum CFU	Growth	Characteristics	Lecithinase Reaction	Coagulase Reaction
Staphylococcus aureus	25923	50-100	good	black	+	+
Proteus mirabilis	25933	50-100	good	brown	+	-
Bacillus subtilis	9466	50-100	poor	brown	-	-
Escherichia coli	25922	≥10^3	partial to complete inhibition	-	-	-

• 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. Baird Parker, A.C.. (1962). An. J. Appl. Bacteriol. 25:12-19.
2. Baird Parker. A.C. (1969) Isolation methods for microbiologists. Shapthon & Gould ed. London: Academic Press.
3. ISO 6888-1:1999. Part 1: Technique using Baird-Parker agar medium.

• PACKAGE

Cat. No : MB-B2121 Baird Parker Broth	500 G