

BAIRD PARKER AGAR BASE (RPF) ISO 6888

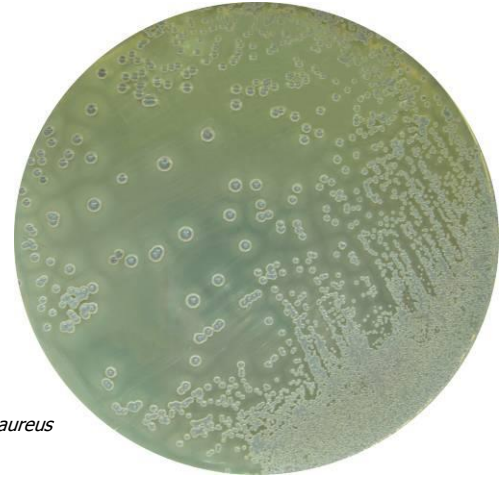
CAT N°: 1319

For the selective isolation of coagulase-positive staphylococci in foods

FORMULA IN g/l

Glycine	12.00	Lithium Chloride	5.00
Casein Pancreatic Digest	10.00	Yeast Extract	1.00
Sodium Pyruvate	10.00	Bacteriological Agar	13.00
Beef Extract	5.00		

Final pH 7.2 ± 0.2 at 25°C



Staphylococcus aureus
ATCC 25923

PREPARATION

Suspend 5.6 grams of the medium in 90 ml of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Sterilize in autoclave at 121°C for 15 minutes. Cool to 45-50°C and aseptically add one vial of the RPF Supplement ISO 6888:2 (Cat. 6024) reconstituted in 10 ml of sterile distilled water or 5 ml of Tellurite Egg Yolk Emulsion ISO 6888:1 (Cat. 5129). Homogenize gently and dispense into Petri dishes. The prepared medium should be stored at 8-15°C, protected from light and for one month maximum. The color is clear amber, slightly opalescent.

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

RPF Supplement (ISO-FDIS 6888-2) (Cat. 6024)

(1 vial to prepare 100 ml of medium)

Bovine Fibrinogen	380 mg
Rabbit Plasma	2.5 ml
Trypsin Inhibitor	2.5 mg
Potassium Tellurite	2.5 mg

USES

BAIRD PARKER AGAR BASE (RPF) is used for the isolation and enumeration of coagulase-positive staphylococci in food and other materials. Supplement RPF (Cat. 6024) is used with Baird Parker Agar Base instead of Tellurite Egg Yolk Emulsion, saving 24 hours on the traditional method.

Casein pancreatic digest, Beef extract and Yeast extract provide nitrogen, vitamins, minerals and amino acids essential for growth. Lithium chloride, Trypsin inhibitor and Potassium tellurite inhibit the accompanying flora, and Glycine and Sodium pyruvate facilitate the staphylococci growth. Bacteriological agar is the solidifying agent.

Baird Parker Agar Base formula is described in ISO- FDIS 6888-1 normative. ISO 6888.2 recommends this medium for the count of coagulase-positive *Staphylococcus aureus*. RPF supplement allows the isolation of coagulase-positive *Staphylococcus aureus*.

Inoculate and incubate at 35 ± 2°C and observe after 18 - 24 hours but, if needed, re-incubate for a further 18 - 24 hours. Coagulase-positive *S. aureus* colonies are ringed with a precipitation halo.

At the start of incubation, *Proteus* colonies can present similar physical characteristics to coagulase- positive *Staphylococcus aureus* colonies. However, after 24 or 48 hours of incubation, they can acquire a brown color that expands and invades the plate, and which allows them to be distinguished from *Staphylococcus*.

MICROBIOLOGICAL TEST

The following results were obtained in the performance of the medium, with supplement added, from type cultures after incubation at a temperature of $35 \pm 2^\circ\text{C}$ and observed after 18 - 24 hours.

Microorganisms	Growth	Colony Color	Coagulase. Transparency around the colonies
<i>Escherichia coli</i> ATCC 25922	Inhibited	-	-
<i>Proteus mirabilis</i> ATCC 25933	Good	Brown	-
<i>Staphylococcus aureus</i> ATCC 25923	Good	Black	+
<i>Staphylococcus epidermidis</i> ATCC 12228	Good	Black	-
<i>Staphylococcus aureus</i> ATCC 6538	Good	Black	+

According ISO 11133 24-48 h/37°C (Productivity, Specificity) and Selectivity (48h37°C)

Microorganismos	Inoculo (cfu/ml)	Productivity Quantitative	Selectivity Qualitative	Specificity Qualitative
<i>Staphylococcus aureus</i> ATCC 25923	10^2	pr ≥ 0.9		
<i>Staphylococcus aureus</i> ATCC 6538	10^2	pr ≥ 0.7		
<i>Escherichia coli</i> ATCC 25922	$10^4 / 10^6$		Inhibited	
<i>Staphylococcus epidermidis</i> ATCC 12228	10^2			White-Greyish

Reference media Productivity: TSA

BIBLIOGRAPHY

Baird Parker, A.C. (1962). An improved diagnostic and selective medium for isolating coagulase-positive staphylococci. J. Appl. Bact. 25 (1): 12-19. Beckers N.J. et al (1984). Cannad J. microbiol. 30: 470-474.

ISO 6888-2. Enumeration of *Staphylococcus aureus* using RPF medium.

ISO 6888-1. Microbiology of food and animal feeding stuffs -- Horizontal method for the enumeration of coagulase-positive staphylococci (*Staphylococcus aureus* and other species) -- Part 1: Technique using Baird-Parker agar medium



STORAGE

Once opened keep powdered medium closed to avoid hydration.

