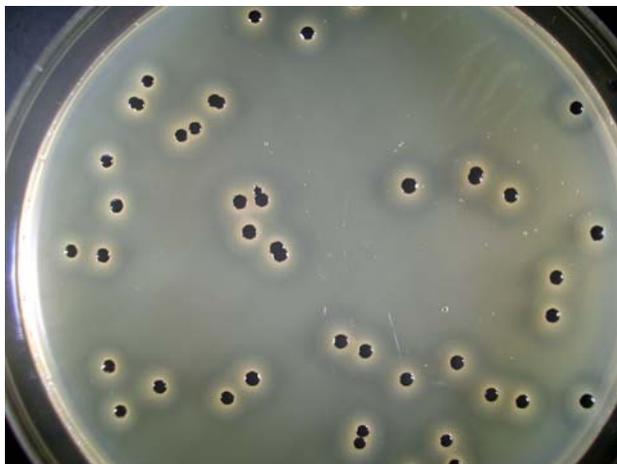


BAIRD PARKER AGAR BASE
Powdered medium base and ready to use plates
for the detection of coagulase-positive staphylococci



Baird Parker Egg Yolk Tellurite Agar: *S.aureus* colonies after incubation of 48 h at 37°C. The double zones (opaque and clear) are present.

TYPICAL FORMULAS**Baird Parker Agar Base (g/l)**

Pancreatic Digest of Casein	10.00
Beef Extract	5.00
Yeast Extract	1.00
Sodium Pyruvate	10.00
Glycine	12.00
Lithium Chloride	5.00
Agar	15.00

Baird Parker Agar - Ready to use plates

Baird Parker Agar Base	1000 ml
Egg Yolk Tellurite Emulsion 20%	50 ml

DIRECTIONS FOR POWDERED MEDIUM***Egg Yolk Tellurite Medium***

Suspend 58 g in 1000 ml of cold distilled water; heat to boiling and autoclave at 121°C for 15 minutes. Cool to about 50°C and, using aseptic conditions, add 50 ml of Egg Yolk Tellurite Emulsion 20% (Code 423700); mix well and pour into sterile Petri dishes.

Rabbit Plasma Fibrinogen Medium

To 90 ml of Egg Yolk free Baird Parker Agar, prepared as described above, autoclaved and cooled to about 50°C, add 10ml of RPF Supplement II (Cod. 423102); mix well and pour into sterile Petri dishes.

Final pH 7.2 ± 0.2

DESCRIPTION

Baird Parker Agar Base is a selective and diagnostic medium recommended by ISO 6888 and by FDA for the isolation and enumeration of coagulase-positive staphylococci in foodstuffs. The medium can be used with Egg Yolk Tellurite Emulsion or with RPF Supplement. Lithium chloride and potassium tellurite inhibit contaminating flora, glycine and sodium pyruvate facilitate the development of staphylococci. Some yeasts, fungi and bacilli also grow, but these are easily distinguishable by

their morphology and by the grey colour of the colonies. ISO 6888 recommends the addition of 5 mg/l of sulphamezathine to the medium after sterilisation to inhibit the development of *Proteus* spp.

TECHNIQUE

ISO 6888-1 recommends the following procedure with the Egg Yolk Tellurite Medium:

1. Prepare the sample suspension and further decimal dilutions with Maximum Recovery Diluent (code 411091).
2. Transfer by means of a sterile pipette 0,1 ml of the test sample if liquid or 0,1 of the initial suspension in the case of other products, to each of two agar plates. Repeat the procedure for further decimal dilutions if necessary.
3. Carefully spread the inoculum as quickly as possible over the surface of the agar plate. Allow the plates to dry.
4. Invert the plates and incubate them for 24 +/- 2hrs at 37°C and re-incubate for a further 24 +/- 2hrs.
5. After incubation for 24hrs mark on the bottom of the plates the positions of any typical colonies. Re-incubate, then mark any new typical colonies. Also mark any atypical colonies present.
6. Enumerate those plates that contain at maximum 300 colonies with 150 typical and/or atypical colonies at two successive dilutions. One of the plates shall contain at least 15 colonies. Select for confirmation five characteristic colonies if there are only characteristic colonies, or five non-characteristic colonies if there are only non-characteristic colonies, or five characteristic and five non-characteristic colonies if both types are present, from each plate. Typical *S. aureus* are black or grey, shining and convex colonies (1-1.5 mm in diameter after 24 h of incubation, 1,5-2,5 mm in diameter after 48 hours), surrounded by a zone of clearing of the medium. After at least 24hrs an opalescent ring immediately in contact with the colonies may appear in this clear zone. Atypical colonies may present one of the following morphologies:
 - Shining black colonies with or without a narrow white edge; the clear zone is absent or rarely visible and the opalescent ring is absent or hardly visible.
 - Grey colonies free of clear zones.

Bacteria belonging to genera other than *Staphylococcus* may grow with colonies similar to staphylococci. Microscopic examination of Gram stain will enable the distinction of other genera from staphylococci.

For confirmation carry out coagulase test using Coagulase Plasma EDTA (code 199995) according to the procedure reported by technical sheet.

Baird Parker recommends enrichment in Tryptic Soy Broth with 10% NaCl or Giolitti-Cantoni Broth to test material containing less than five staphylococci per gram.

AOAC recommends a technique for coagulase-positive staphylococci detection in foodstuffs, which involve enrichment in Tryptic Soy Broth with 1% Sodium Chloride for 48 hours, then a transfer to Baird-Parker Medium and catalase and coagulase tests.

For the technique using Baird Parker RPF Medium, recommended by ISO 6888-2, see the technical sheets of Baird Parker RPF Agar (cat. N° 543101) and RPF Supplement II (cat. N° 423102)

USER QUALITY ASSURANCE (37°C-48 h)

Productivity control

S.aureus ATCC 6538: good growth, typical colonies

S.aureus ATCC 25923: good growth, typical colonies

Selectivity control

E.coli ATCC 25922: inhibited

Specificity control

S.epidermidis ATCC 12222: partially inhibited,

STORAGE

Dehydrated medium: 10-30°C

Ready to use plates: 2-8°C

User prepared plates: up to 24 hours at 2-8°C

REFERENCES

- Baird-Parker, A.C. (1962) J. Appl. Bact., **25**, 12-19.
- ISO 6888-1. Microbiology of foods and animal feeding stuffs Horizontal method for the enumeration of coagulase positive staphylococci, part 1: technique using Baird Parker Agar Medium . 1998.
- ISO 6888-2:1999 Microbiology of food and animal feeding stuffs -- Horizontal method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species) -- Part 2: Technique using rabbit plasma fibrinogen agar medium
- FDA (1995) Bacteriological Analytical Manual, 8th ed. Revision A, 1998. Published by AOAC International.

PACKAGING

Powdered medium

4011162	Baird Parker Agar Base	500g (8,6 l)
4011164	Baird Parker Agar Base	5 kg (86 l)

Supplements

423700	Egg Yolk Tellurite Emulsion 20%	50 ml
423701	Egg Yolk Tellurite Emulsion 20%,	100 ml
423702	Egg Yolk Tellurite Emulsion 20%,	200 ml
423102	RPF Supplement II	4 fiale da 10 ml –each for 100 ml of medium

Ready to use plates and flasks

541116	Baird Parker Agar (E.Y.)	20 plates
543101	Baird Parker RPF Agar	20 plates
5111162	Baird Parker Agar Base	6 x 100 ml