

BAIRD PARKER / BILE ESCULIN / SABOURAUD CAFSelective media for *Staphylococcus aureus*, group D streptococci and fungi isolation.

BAIRD PARKER TYPICAL FORMULA (g/l)		BILE ESCULIN FORMULA TYPICAL (g/l)		SABOURAUD CAF TYPICAL FORMULA (g/l)	
Tryptone	10.0	Tryptone	17.0	Peptomycol	10.0
Meat Extract	5.0	Peptone	3.0	Glucose	40.0
Yeast Extract	1.0	Yeast Extract	5.0	Chloramphenicol	0.5
Glycine	12.0	Bacteriological Bile	10.0	Agar	15.0
Sodium Pyruvate	10.0	Sodium Chloride	5.0	Final pH 5.6 ± 0.2	
Lithium Chloride	5.0	Esculine Hydrate	1.0		
Egg Yolk Tellurite	50.0 ml	Sodium Citrate	1.0		
Agar	17.0	Ammonium Ferric Citrate	0.5		
Final pH 7.2 ± 0.2		Agar	15.0		
		Final pH 7.1 ± 0.2			

DESCRIPTION

BAIRD PARKER AGAR is a selective medium for isolating coagulase-positive staphylococci from foods, according to ISO 6888-1:1999.

BILE ESCULIN AGAR is a selective medium for isolating group D streptococci in foods and pharmaceutical products. It is suggested also for enumeration of faecal enterococci in water.

SABOURAUD CAF AGAR is a selective medium for yeasts and moulds isolation from clinical samples.

PRINCIPLE

Tryptone, meat extract, peptone and Peptomycol yield the medium highly nutritive providing organic nitrogen, amino acids and peptides with long chain. In **BAIRD PARKER AGAR** yeast extract is a source of aminoacids and vitamins of group B while glycine and sodium pyruvate favour the growth of staphylococci. Lithium chloride and potassium tellurite inhibit contaminating flora. Egg yolk emulsion allows to put in evidence a clarifying zone around the colonies due to the activity of coagulase.

In **BILE ESCULIN AGAR** yeast extract is a source of aminoacids and vitamins of group B. Bacteriological Bile inhibits the growth of Gram-positive bacteria while sodium chloride maintains the osmotic balance of the medium. Esculetin, produced by the hydrolysis of esculin, reacts with the ferric citrate to form a dark brown or black complex.

In **SABOURAUD CAF AGAR** the high glucose concentration and the acid pH make this medium selective for fungi: particularly the acid pH inhibits the bacterial growth, except the acidophilic ones. The presence of chloramphenicol inhibits the bacterial contamination.

Agar is the solidifying agent.

TECHNIQUE

Inoculate plates streaking the sample to test on the agar surface using a sterile loop. Incubate at 36±1°C for 24-48 and eventually prolong incubation for further 24-48 hours at 25-30°C.

INTERPRETATION OF RESULTS

On **BAIRD PARKER AGAR** *Staphylococcus aureus* produces black shiny colonies, surrounded by a clarifying halo of the medium. Some strains of streptococci, micrococci, corynebacteria and enterococci cultivate with black colonies but they do not clarify egg yolk, while some yeasts, fungi and bacilli cultivate with gray colonies without halo.

On **BILE ESCULIN AGAR** group D streptococci grow readily and hydrolyze esculin, resulting in a dark brown color around the colonies.

On **SABOURAUD CAF AGAR** yeasts and moulds produce white colonies.

STORAGE AND TRANSPORT CONDITIONS

6-12°C away from light, until the expiry date on the label. However, our stability studies have shown that the transport at 18-25°C for 4 days, or at 35-39°C for 48 hours, does not alter in any way the performance of the product. Eliminate if signs of deterioration or contamination are evident.

WARNING AND PRECAUTIONS

The product does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous. It is nevertheless recommended to consult the safety data sheet for its correct use. The product is designed for *In vitro* diagnostic use and must be used only by properly trained operators.

DISPOSAL OF WASTE

Disposal of waste must be carried out according to the national and local regulations in force.

REFERENCES

1. ISO 6888-1:1999 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.
2. ISO/FDIS 7899-2: 2000. Water Quality – Detection and enumeration of intestinal enterococci.
3. NCCLS document M22-A2, 1996. Approved Standard.
4. APHA (1963). Diagnostic procedures and reagents.
5. European Pharmacopoeia 4th ed. 2002.

**LIOFILCHEM® S.r.l.**

Via Scozia, Zona Ind.le - 64026, Roseto degli Abruzzi (TE) - ITALY

Tel +39 0858930745 Fax +39 0858930330 Website: www.liofilchem.net E-mail: liofilchem@lioilchem.net



PRODUCT SPECIFICATIONS

NAME
BAIRD PARKER AGAR / BILE ESCULIN AGAR / SABOURAUD CAF AGAR

PRESENTATION
Ready to use plates (90 mm) containing 22+/-1 ml of medium

STORAGE
6-12°C

PACKAGING

Ref.	Content	Packaging
13602	20 plates	<ul style="list-style-type: none"> 10 plates in thermally soldered film 2 x 10 plates in cardboard box
13602*	100 plates	<ul style="list-style-type: none"> 10 plates in thermally soldered film 10 piles (10 x 10 plates) in cardboard box

pH OF THE MEDIA

BAIRD PARKER AGAR 7.2 ± 0.2 / BILE ESCULIN AGAR 7.1 ± 0.2 / SABOURAUD CAF AGAR 5.6 ± 0.2

USE

BAIRD PARKER AGAR is a selective medium for isolating coagulase-positive staphylococci from foods, according to ISO 6888-1:1999
BILE ESCULIN AGAR is a selective medium for isolating group D streptococci in foods and pharmaceutical products. It is suggested also for enumeration of faecal enterococci in water
SABOURAUD CAF AGAR is a selective medium for yeasts and moulds isolation from clinical samples

TECHNIQUE

Refer to technical sheet of the product

APPEARANCE OF THE MEDIA

BAIRD PARKER AGAR is a yellow opalescent medium
BILE ESCULIN AGAR is a greenish to medium amber medium, slightly opalescent
SABOURAUD CAF AGAR is an amber medium, slightly opalescent

SHELF LIFE

4 months

QUALITY CONTROL

- Control of general characteristics, label and print
- Sterility control
7 days at 22 ± 1°C, in aerobiosis
7 days at 36 ± 1°C, in aerobiosis
- Microbiological control
Inoculum for productivity: 10-100 CFU/ml
Inoculum for selectivity: 10⁴-10⁵ CFU/ml
Inoculum for specificity: ≤10⁴ CFU/ml
Incubation Conditions: 18-24 hours at 36 ± 1°C

Microorganisms		Growth on BAIRD PARKER AGAR	Growth on BILE ESCULIN AGAR	Growth on SABOURAUD CAF AGAR
<i>Staphylococcus aureus</i>	ATCC 25923	Good/ Black colonies/ Clarification halo	Inhibited	Inhibited
<i>Escherichia coli</i>	ATCC 25922	Inhibited	Good/ Red- pink colonies	Inhibited
<i>Staphylococcus epidermidis</i>	ATCC 14990	Good/ Black colonies	Inhibited	---
<i>Enterococcus faecalis</i>	ATCC 19433	---	Good/ Esculin hydrolysis, blackening	---
<i>Candida albicans</i>	ATCC 10231	---	---	Good/ White colonies
<i>Saccharomyces cerevisiae</i>	ATCC 9763	---	---	Good/ White colonies

TABLE OF SYMBOLS

 Batch code	 <i>In vitro</i> Diagnostic Medical Device	 Manufacturer	 Use by	 Fragile, handle with care
 Catalogue number	 Temperature limitation	 Contains sufficient for <n> tests	 Caution, consult instructions for use	 Do not reuse



LIOFILCHEM® S.r.l.

Via Scozia, Zona Ind.le - 64026, Roseto degli Abruzzi (TE) - ITALY
Tel +39 0858930745 Fax +39 0858930330 Website: www.liofilchem.net E-mail: liofilchem@lioilchem.net

