BAIRD PARKER AGAR

INTENDED USE:
A selective and diagnostic medium for the isolation and enumeration of Staphylococcus aureus in foods

PRINCIPLE AND INTERPRETATION:
Baird-Parker added sodium pyruvate, to protect damaged cells and aid their recovery[2] and egg yolk emulsion as a diagnostic agent.

The selective agents glycine, lithium and tellurite have been carefully balanced to suppress the growth of most bacteria present in foods, without inhibiting Staphylococcus aureus.

Egg yolk emulsion makes the medium yellow and opaque. Staphylococcus aureus reduces tellurite to form grey-black shiny colonies and then produces clear zones around the colonies by proteolytic action. This clear zone with typical grey-black colony is diagnostic for Staphylococcus aureus. On further incubation, most strains of Staphylococcus aureus form opaque haloes around the colonies. This is probably due to the action of a lipase. Not all strains of Staphylococcus aureus produce both reactions. Some strains of Staphylococcus saprophyticus produce both clear zones and opaque haloes but experienced workers can distinguish these from Staphylococcus aureus by the longer incubation time required[5].

COMPOSITION:

Ingredients	Gr/Liter
Tryptone	10 gr
Meat extract B#	5 gr
Yeast extract	1 gr
Sodium pyruvate	10 gr
Glycine	12 gr
Lithium chloride	5 gr
Egg Yolk Tellurite Emulsion	50 ml
Agar	20 gr

***Formula adjusted, standardized to suit performance parameters

pH: 6,8 ± 0,2

PRECAUTIONS:
For professional use only. Do not use plates if they show evidence of microbial contamination, discoloration, drying, cracking or other signs of deterioration.

TEST PROCEDURE:
1-Dry the surface of agar plates for a minimal period of time prior to use.
2-With a glass spatula, spread 0,1ml aliquots of food dilutions made up in Buffered Peptone Water on the agar surface until it is dry. Up to 0,5ml may be used on larger dishes.
3-Incubate the inverted dishes at 35°C. Examine after 24 hours and look for typical colonies of Staphylococcus aureus. Re-incubate negative cultures for a further 24 hours.

QUALITY CONTROL:
1.Sterility Control:
Incubation 48 hours at 30-35°C and 72 hours at 20-25°C: NO GROWTH

2.Phsical/Chemical Control
pH: 6,8 ± 0,2
Apperance: Amber

3.Microbiological Control: Incubation at 35±2 °C during 24-48 h

Microorganism	Inoculum (CFU)	Results	
		Growth	Reaction
Staphylococcus aureus ATCC 25923	10-100	Good	Black colonies, lecithinase +
Staphylococcus epidermidis ATCC 12228	10-100	Good	Black colonies, lecithinase -
Bacillus subtilis ATCC 6633	100-1000	Inhibition	-
Escherichia coli ATCC 25922	100-1000	Inhibition	-

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STORAGE CONDITIONS AND SHELF LIFE:

Store the prepared medium at 2 - 12°C. Use before expiry date on the label. Do not use beyond stated expiry date.

DISPOSAL:

Incubated prepared medium may contain active bacteria and micro-organisms. Do not open infected medium. Infected plate should be autoclaved, incinerated or opened and soaked in a chlorine-based disinfectant (liquid bleach) for 20 minutes prior to disposal.

PACKAGING:

Katalog Number: 02001
Packaging: Single wrap
Content: 10 plates/each package

REFERENCES:

1. Baird-Parker A. C. (1962) J. Appl. Bact. 25. 12-19.
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3. Baird-Parker A. C. (1963) J. Gen. Microbiol. 30. 409-413.
4. Chopin A., Malcolm S., Jarvis G., Asperger H., Beckers H. J., Bertona A. M., Cominazzini C., Carini S., Lodi R., Hahn G., Heeschen W., Jans J. A., Jervis D., I., Lanier J. M., O'Connor F., Rea M., Rossi J., Seligmann R., Tesone S., Waes G., Mocquot G. and Pivnick H. (1985) ICMSF Methods studies XV. J. Food Protect. 48. 21-27.
5. Shaw S., Scott M. and Cowan T. (1957) J. Gen. Microbiol. 5. 1010-1023.