

## Baird Parker Agar Base

### Intended Use

For the isolation and enumeration of coagulase positive staphylococci from food and pharmaceutical materials

### Typical Composition (g/liter)

Tryptone 10.0 ; HM Peptone B# 5.0 ; Yeast extract 1.0 ; Glycine 12.0 ; Sodium pyruvate 10.0 ; Lithium chloride 5.0 ; Agar 20.0

### Mode of Action

The medium contains Pyruvate and glycine, which selectively stimulate the growth of staphylococci, whereas lithium chloride and tellurite inhibit the growth of accompanying microbial flora.

A high correlation has been found between the coagulase test and the presence of clear zone of lipolysis in this medium, which is due to the lecithinase of Staphylococci that breakdown, the egg yolk. On the other hand, studies show that almost 100% of coagulase positive Staphylococci are capable of reducing tellurite, which produces black colonies, whereas other Staphylococci cannot always do so.

The egg-yolk reaction and tellurite reduction are usually found to occur together with a positive coagulase reaction and can thus serve as an index for the later.

### Preparation

Suspend 63.0 grams in 950 ml purified/ distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 50°C and aseptically add 50 ml concentrated Egg Yolk Emulsion and 3 ml sterile 3.5% Potassium Tellurite solution or 50 ml Egg Yolk Tellurite Emulsion .pH ( at 25°C) 6.8±0.2

### Storage

Store between 10-30°C in a tightly closed container and the prepared medium at 2 - 8°C. Use before expiry date on the label

### Specimen

Clinical samples: Pus, wounds, blood; Food and dairy samples

### Experimental Procedure and Evaluation

For food, dairy and clinical samples follow appropriate techniques for sample collection and processing as per guidelines.



**Staphylococcus Aureus**

## Quality Control

Organism	Inoculum	Growth	Recovery	Colony colour
Staphylococcus aureus ATCC 6538	50 - 100	Luxuriant	>=50 %	Grey-black shiny
Staphylococcus aureus ATCC 25923	50 - 100	Luxuriant	>=50 %	Grey-black shiny
Proteus mirabilis ATCC 25933	50 - 100	Good-luxuriant	>=50 %	Brown - black
Micrococcus luteus ATCC 10240	50 - 100	Poor - good	30 -40 %	Shades of brown-black
Staphylococcus epidermidis ATCC 12228	50 - 100	Poor - good	30 -40 %	Black
Bacillus subtilis subsp. spizizenii ATCC 6633	50 - 100	None - poor	0 -10 %	Dark brown matt
Escherichia coli ATCC 8739	50 - 100	None - poor	0 -10 %	Large brown black
Escherichia coli ATCC 25922	50 - 100	None - poor	0 -10 %	Large brown black
Escherichia coli NCTC 9002	50 - 100	None - poor	0 -10 %	Large brown black

## Reference

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