

Specification

Selective culture medium for the screening of Staphylococci from a variety of samples, acc. to Pharmacopoeias, ISO and DIN standards.

Presentation

20 Prepared Plates
90 mm
with: 21 ± 2 ml

Packaging Details

1 box with 2 packs of 10 plates/pack. Single cellophane.

Shelf Life

3 months

Storage

2-14 °C

Composition

Composition (g/l):

Casein Peptone.....	10.0
Sodium pyruvate.....	10.0
Glycine.....	12.0
Meat extract.....	5.0
Lithium chloride.....	5.0
Yeast extract.....	1.0
Agar	15.0
Egg Yolk Emulsion.....	50.0 ml
Potassium Tellurite 1%.....	10.0 ml

Description /Technique

Description

Baird Parker Agar is recommended for the detection and enumeration of staphylococci in food and other material, since it allows a good differentiation of coagulase-positive strains. The growth of the accompanying bacteria is usually suppressed by the high concentration in lithium, glycine and pyruvate. Lithium and glycine enhances the growth of staphylococci. Occasionally the medium may grow some *Bacillus* species, yeast and very rarely, *Proteus*.

The presence of tellurite and egg yolk allows the differentiation of presumptive pathogenic staphylococcal colonies. There is a high correlation between the coagulase test and the presence of clear zones of lypolysis in this medium, which is due to the staphylococcal lecithinase. Studies show that almost 100% of coagulase-positive staphylococci are capable of reducing tellurite, which produces black colonies, whereas other staphylococci can not always do so.

Technique

Collect, dilute and prepare samples and volumes as required according to specifications, directives, official standard regulations and/or expected results.

Spread the plates by streaking methodology or by spiral method. After 24-48 hours of incubation at 37±1°C, select the colonies which are black, shiny and convex with regular margins surrounded by a clear zone. These can be presumptly identified as coagulase-positive *Staphylococcus aureus*.

Colonial appearance after 24-48 hours at 37+1°C ±2,0:

- *Staphylococcus aureus*: Black, shiny, convex, regular margins, 1,0-1,5 mm diameter, surrounded by a clear zone of lipolysis (egg yolk clearing reaction) 2-5 mm in width. Wide opaque zones of precipitate extending into the cleared medium may occur after 48 hours.
- Other species of *Staphylococcus*: Black, usually dull, with regular margins. Sometimes brown with zones of clearing but these present as wide opaque zones.
- *Micrococcus* spp: Brown, very small and without clearing zones.
- *Bacillus* spp: Various shades of brown, big. May produce clearing zones after 48 hours.
- Yeasts: White, big and smooth.

Precautions

Do not reuse. For professional use only.

Do not use the product if it shows evidence of microbial contamination, discoloration, drying, cracking or other signs of deterioration.

Quality control**Physical/Chemical control**

Color : yellow

pH: 7.2 ± 0.2 at 25°C

Microbiological control

Inoculate: Practical range 100 ± 20 CFU. min. 50 CFU (productivity)/ 10⁴-10⁶ (selectivity) and <100 UFC (specificity-PhEur) and ≥10³ UFC (specificity-ISO).

Microbiological control according to ISO 11133:2014/A1:2018.

Analytical methodology according to ISO 11133:2014/A1:2018; A2:2020.

Aerobiosis. Incubation at 37 °C ± 1, reading after 24-48 ± 2h

S. aureus and *E. coli* double incubation temp. 30-35 °C / 37°C

Microorganism

Escherichia coli ATCC® 8739, WDCM 00012

Staphylococcus aureus ATCC® 6538, WDCM 00032

Stph. epidermidis ATCC® 12228, WDCM 00036

Stph. saprophyticus ATCC® 15305, WDCM 00159

Stph. aureus ATCC® 25923, WDCM 00034 (37°C)

Stph. aureus ATCC® 6538, WDCM 00033 (32,5°C)

Escherichia coli ATCC® 8739, WDCM 00012 (32,5°C)

Growth

Inhibited

Good. Black/grey colonies with halo. Lecithinase (+)

Black/grey colonies w/o halo. Lecithinase (-)

Black/grey colonies w/o halo. Lecithinase (-)

Good. Black/grey colonies with halo. Lecithinase (+)

Good. Black/grey colonies with halo. Lecithinase (+)

Inhibited

Sterility control

Incubation 48 h at 30-35 °C and 48 h at 20-25 °C: NO GROWTH.

Check at 7 days after incubation in same conditions.

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