ALLIANCE BIO EXPERTISE

Reference: FLWR3074 **A.B.E. - Technical Data Sheet**

Product: **Baird Parker Agar Base - 90 ml**

Specification

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

Presentation

10 Prepared bottles
Bottle 125 ml
with: 90 ± 3 ml

Packaging Details

1 box with 10 bottles 125 ml. Injectable cap: Plastic screw inner cap. The use of syringes needles with a diameter greater than 0.8 mm is not recommended.

Shelf Life	Storage
12 months	8-25 ºC

Composition

Composition (g/l):

Casein Peptone	10.0
Sodium pyruvate	10.0
Glycine	12.0
Meat extract	5.00
Lithium chloride	5.00
Yeast extract	1.00
Agar	17.0

To complement the medium add Egg Yolk with Telurite steril solution Ref DSHB3061

Description /Technique

Description

Baird Parker Agar Base 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 growth of *Proteus spp*. can be suppressed by adding 50 mg/L of sulphamethazine.
The presence of tellurite and egg yolk, which must be added to the medium after sterilization, 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

To use, the contents of the bottle should be poured into plates. The melting of the culture medium should be carried out according to the manufacturer's instructions, either in a water bath or microwave oven. Never apply direct heat to melt a medium. The melting temperatures and times depend on the shape of the container, the volume of medium and the heat source. Before melting any medium loosen the screwcap of the container to avoid breaking the container. The medium should be melted only once and used. Media with agar should not be melted repeatedly as their characteristics change with each remelting. Overheating should be avoided as much as prolonged heating, especially with regard to media with an acidic or alkaline pH. Once melted pour the plates using aseptic techniques. Prepare the complet medium by adding 50 mL/L medium Sterile Egg Yolk + Potassium Tellurite emultion. Homogeneize and distribute into plates.
To inoculate, follow standard laboratory methods or the applicable norms. Spiral plate method, streak plating, econometric methods, dilution banks or spread plating.
The use methodology is according to ISO 6888.
After 24-48 hours of incubation at 37±1ºC, select the colonies which are black, shiny and convex with regular margins surrounded by a clear zone (Lecithinase +). These can be presumptly identified as coagulase-positive *Staphylococcus aureus*. To confirm the Coagulase test, inoculate the colony in the medium A. RPF Baird Parker.

Quality control

Physical/Chemical control

Color : yellow pH: 7.2 ± 0.2 at 25ºC

Microbiological control

Add Egg yolk Tellurite - Inoculate : Practical range 100 ± 20 CFU. min. 50 CFU (productivity)/10^4-10^6 (selectivity)/ <100 UFC (specificity-PhEur) and ≥10^3 UFC (specificity-ISO)
Distribute the complete medium, cooled at 50ºC, in plates

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

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

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

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

Microorganism	Growth
Escherichia coli ATCC® 8739, WDCM 00012	Inhibited
Staphylococcus aureus ATCC® 6538, WDCM 00032	Good. Black/grey colonies with halo. Lecithinase (+)
Stph. epidermidis ATCC® 12228, WDCM 00036	Black/grey colonies w/o halo. Lecitinase (-)
Stph. saprophyticus ATCC® 15305, WDCM 00159	Black/grey colonies w/o halo. Lecitinase (-)
Stph. aureus ATCC® 25923, WDCM 00034 (37ºC)	Good. Black/grey colonies with halo. Lecithinase (+)
Stph. aureus ATCC® 6538, WDCM 00033 (32,5ªC)	Good. Black/grey colonies with halo. Lecithinase (+)
Escherichia coli ATCC® 8739, WDCM 00012 (32,5ºC)	Inhibited

Sterility control

Incubation 48 h at 30-35 ºC and 48 h at 20-25 ºC: NO GROWTH.
Check at 7 days after incubation in same conditions.

Bibliography

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