Reference: 064-BA1033 **Scharlau Microbiology - Technical Data Sheet**

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

Specification

Medio de cultivo sólido y selectivo para la prospección de estafilococos en muestras diversas según farmacopeas, normas ISO y DIN.

Presentation

	Packaging Details	Shelf Life	Storage
10 Prepared bottles Bottle 125 ml with: 90 ± 3 ml	1 box with 10 bottles 125 ml. Metalic-non injectable cap.	12 months	8-25ºC

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	15.0

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 species 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. Plates should be used on the same day of preparation or within 48 hours, to avoid the loss of definition in the precipitated zones. The medium base, without yolk or tellurite, is perfectly stable and therefore can be melted repeatedly.

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 EN ISO 6888.

The inoculation is carried out by spreading 0,5 mL of sample over each plate with a Drigalsky loop. 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. These can be presumptly identified as coagulase-positive Staphylococcus aureus.

Quality control

Physical/Chemical control

Color : yellow pH: 7.2 ± 0.2 at 25ºC

Microbiological control

Add supplement to functionality - Inoculate : Practical range 100±20 CFU; Min. 50 CFU (Productivity)/10^4-10^6 (Selectivity).
Distribute the complete medium, cooled at 50ºC, in plates

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

Microorganism	Growth
Staphylococcus aureus ATCC® 25923	Good. Black/grey colonies with clear halo. Lecithinase positive
Escherichia coli ATCC® 8739	Inhibited
Staphylococcus aureus ATCC® 6538	Good. Black/grey colonies with clear halo. Lecithinase positive
Staphylococcus epidermidis ATCC® 12228	Black/grey colonies without halo. Lecitinase negative
Staphylococcus saprohyticus ATCC® 15305	Black/grey colonies without halo. Lecitinase negative

Sterility Control

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

Bibliography

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