Baird Parker Agar Base ISO

Cat. 1100

For the selective isolation of staphylococci.

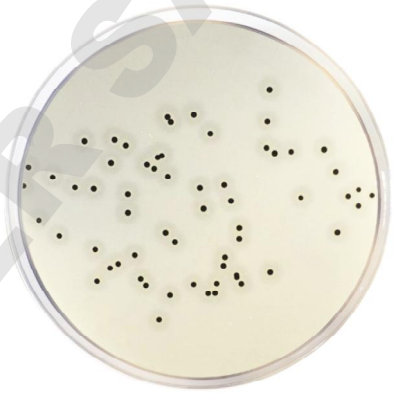
Practical information

Aplications	Categories
Selective isolation	Staphylococcus

Industry: Clinical / Food / Cosmética

Regulations: ISO 11133 / ISO 22718 / ISO 6888

CE IVD



Principles and uses

Baird Parker Agar Base is used for the selective isolation and enumeration of staphylococci. This medium is widely used and is included in many standard method procedures for testing foods, dairy products, etc.

Pancreatic digest of casein, Beef extract and Yeast extract provide nitrogen, vitamins, minerals and amino acids essential for growth. Lithium chloride and Potassium tellurite inhibit the accompanying flora, and Glycine and Sodium pyruvate facilitate staphylococci growth. Staphylococci that contain lecithinase break down the egg yolk and form clear zones around the colonies. Black colonies are formed due to the reduction of the Potassium tellurite to tellurium. Bacteriological agar is the solidifying agent.

Typical S. aureus colonies are black, shiny, convex and surrounded by a clear zone of approximately 2-5 mm in diameter.

Some other microorganisms, which occasionally grow on this medium, are micrococci that form small dark or black colonies, yeasts that form white colonies and some species of Bacillus that form dark brown matte colonies.

The base without additive can be kept for long periods of time and can be melted as needed.

Formula in g/L

Bacteriological agar	20	Glycine	12
Beef extract	5	Pancreatic digest of casein	10
Sodium pyruvate	10	Yeast extract	1
Lithium chloride	5		

Preparation

Suspend 63 grams of the medium in 1 liter of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Sterilize in autoclave at 121 ºC for 15 minutes. Cool to 45-50 ºC and aseptically add 5 ml of Tellurite Egg Yolk Emulsion (Cat. 5129) per 100 ml of base medium. Homogenize gently and dispense into Petri dishes.

Instructions for use

For clinical diagnosis, the type of sample is any clinical sample.
- The plates should be dry before inoculation (the drying can be done by incubating at 35±2 ºC for approximately 10 minutes before use).
- Prepare the sample in an adequate solution, dilute it and place from 0,1 ml to 1,0 ml of the appropriate dilution in the plates.
- Spread the inoculum over the entire surface.
- Incubate at 35±2 ºC for 24-48 hours.

Quality control

Solubility	Appareance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25ºC)
w/o rests	Fine powder	Light toasted	Yellow opalescent	6,8±0,2

Microbiological test

According to ISO 11133:
Incubation conditions: Productivity, Specificity (24±2-48±2 h/ 37±1ºC) / Selectivity (48±2 h / 37±1 ºC).
Inoculation conditions: Productivity quantitative (100±20. Min.50 cfu) / Selectivity (10^4-10^6 cfu) / Specificity (10^3-10^4 cfu).
Reference media: TSA.

Microorganisms	Specification	Characteristic reaction
Staphylococcus epidermidis ATCC 12228	Growth	Black or grey colonies without egg yolk clearing reaction
Staphylococcus saprophyticus ATCC 15305	Growth	Black or grey colonies without egg yolk clearing reaction
Escherichia coli ATCC 25922	Total inhibition (0)	
Staphylococcus aureus ATCC 25923	Good growth >50%	Black or grey colonies with clear halo (egg yolk clearing reaction)
Staphylococcus aureus ATCC 6538	Good growth >50%	Black or grey colonies with clear halo (egg yolk clearing reaction)

Storage

Temp. Min.:2 ºC
Temp. Max.:25 ºC

Bibliography

Baird-Parker. I App. Bact. 25:12. 1962. Baird-Parker. J. Ann. Micromiol. 30:409, 1963.
Sharp, Neave and Reider. J. App. Bact. 28:390. 1962. Baird-Parker and Devenport J. App. Bact. 28:390. 1965.Tardio and Bact. J. AOAC. 54:728, 1971.