

TM 1999 – BAIRD PARKER AGAR BASE (FPT)

INTENDED USE

For the isolation and enumeration of coagulase positive Staphylococci from food and other materials.

PRODUCT SUMMARY AND EXPLANATION

This medium is a modification of Baird-Parker Medium and is recommended for the selective isolation, enumeration and confirmation of *Staphylococcus aureus* from food and other specimens. This medium retains the Baird-Parker Agar Base, which has been specifically formulated to resuscitate injured cells. This medium differs from Baird-Parker Medium in that the egg yolk emulsion has been replaced by fibrinogen, rabbit plasma and trypsin inhibitor. The fibrinogen was added to enhance the coagulase reaction in the medium. The addition of rabbit plasma was found to be more specific for the coagulase activity when compared to other sources of plasma. Trypsin inhibitor was added to prevent fibrinolysis. Some strains of *Staphylococcus aureus* are sensitive to potassium tellurite when used at 0.01% w/v in Baird Parker Agar. This modification of Baird Parker agar base gives comparable growth and selectivity to that achieved on Baird-Parker agar base. The reduction in potassium tellurite concentration in Baird Parker agar base results in *Staphylococcus aureus* strains forming white, grey or black colonies, which are surrounded by an opaque halo of precipitation, i.e. the coagulase reaction.

On this medium Staphylococcal coagulase positive colonies are white to grey-black surrounded by an opaque zone of coagulase activity within 24-40 hours of incubation at 35°C. Reduction in tellurite is necessary because of absence of egg yolk emulsion. This results in translucent agar and white to grey coloured colonies of Staphylococci. For quantitative results select 20 - 200 colonies. Count *Staphylococcus aureus* like colonies and test them for coagulase reaction. Report *Staphylococcus aureus* per gram of food.

COMPOSITION

Ingredients	Gms / Ltr
Casein enzymic hydrolysate	10.000
Meat extract	5.000
Yeast extract	1.000
Glycine	12.000
Sodium Pyruvate	10.000
Lithium Chloride	5.000
Agar	20.000

PRINCIPLE

Sodium Pyruvate protects injured cells and helps recovery. Lithium Chloride and Potassium Tellurite inhibit most of contaminating microflora except *Staphylococcus aureus*. Glycine, pyruvate enhances growth of *Staphylococcus*. Upon further incubation, an opaque zone is developed around colonies which can be due to lipolytic activity.

INSTRUCTION FOR USE

- Dissolve 6.3 grams in 90 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 45-50°C and aseptically add rehydrated content of 1 vial of Fibrinogen Plasma Trypsin Inhibitor Supplement.
- Mix well and pour into sterile Petri plates.



Warning: Lithium Chloride is harmful. Avoid all bodily contact and inhalation of vapours. On contact with skin wash with plenty of water immediately.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium : Basal medium: Amber coloured clear to slightly opalescent gel. After addition of Fibrinogen plasma trypsin inhibitor supplement(FD195): Amber coloured opalescent gel forms in Petri plates.
pH (at 25°C) : 7.2±0.2

INTERPRETATION

Cultural characteristics observed after incubation with added Fibrinogen Plasma Trypsin Inhibitor Supplement.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
<i>Bacillus subtilis</i>	6633	50-100	None-poor	0-10%	35-37°C	24-48 Hours
<i>Micrococcus luteus</i>	10240	50-100	Fair -good	20-40%	35-37°C	24-48 Hours
<i>Proteus mirabilis</i>	25933	50-100	Good-luxuriant	>=50%	35-37°C	24-48 Hours
<i>Staphylococcus aureus</i>	25923	50-100	Good-luxuriant	>=50%	35-37°C	24-48 Hours
<i>Staphylococcus epidermidis</i>	12228	50-100	Fair -good	20-40%	35-37°C	24-48 Hours
<i>Escherichia coli</i>	25922	50-100	Inhibited	0%	35-37°C	24-48 Hours

PACKAGING:

In pack size of 100 gm and 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.













DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.



REFERENCES

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3. Zebowitz, E., Evans J.B. & Niven C.F., (1955), J. Bact., 70: 686.
4. Tardio and Baer, 1971, J. Assoc. Off. Anal. Chem., 54: 728.
5. Baer, 1971, J. Assoc. Off. Anal. Chem., 54: 732.
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7. J. Assoc. off. Anal. chem, 1971, 54: 401.
8. International Organisation for Standardisation (ISO), 1999, enumeration of Staphylococcus aureus by colony counts technique Draft ISO/DIS 6888-2.
9. Beckers N. J. et. al., 1984, Can. J. of Microbiol, 30: 470

 GMP Good Manufacturing Practices Certified	 IVD For In Vitro Diagnostic Use	 QTY. Quantity	 LOT/ B. NO. Lot / Batch Number	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 EC REP Authorized Representative <small>MedNet GmbH Birkstrasse 10 48163 Muenster, Germany</small>	 European Conformity	 QR Code	 Consults Instructions for Use	 Best Before

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**
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