

TM 635- BAIRD PARKER AGAR BASE (IS: 5887 (Part II) 1976, reaffirmed 2005)

INTENDED USE

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

PRODUCT SUMMARY AND EXPLANATION

Baird parker agar Base is recommended for the isolation and enumeration of *Staphylococci* in food and other material. It was developed by Baird Parker from the Tellurite-glycine formulation of Zebovitz et al. BIS has recommended this medium with an increased amount of sodium pyruvate, for isolation of *Staphylococcus aureus*.

COMPOSITION

Ingredients	Gms / Ltr
Agar	20.000
Glycine	12.000
Sodium pyruvate	12.000
Casein enzymatic hydrolysate	10.000
Meet extract	5.000
Lithium chloride	5.000
Yeast extract	1.000

PRINCIPLE

Casein enzymatic hydrolysate, Beef extract are the source of carbon and nitrogen. Yeast extract provides vitamins (B-complex) which helps in stimulating bacterial growth. The selectivity of the medium is maintained by the addition of Lithium chloride and Potassium Tellurite solution. Both are helpful in suppressing the growth of other organism except *Staphylococci* sp. Glycine and Sodium pyruvate stimulate the growth of *Staphylococci*. *Staphylococci* that contain lecithinase break down the egg yolk and form clear zones around the colonies. Black colonies are formed due to reduction of the Potassium tellurite to tellurium.

INSTRUCTION FOR USE

1. Dissolve 65.00 grams in 950ml distilled water.
2. Gently heat to boiling with swirling to dissolve the medium completely.
3. Sterilize by autoclaving at 15 psi (121°C) for 15 minutes.
4. Cool to 50°C and aseptically add 50 ml concentrated Egg Yolk Emulsion (TS 002) and 3 ml sterile 3.5% Potassium Tellurite solution (TS 003) or 50 ml Egg Yolk Tellurite Emulsion (TS 001).
5. Mix well and pour into sterile Petri plates.

Note: Lithium chloride is harmful. Avoid bodily contact and inhalation of vapours. On contact with skin wash with plenty of water immediately.

QUALITY CONTROL SPECIFICATIONS

Appearance of Dehydrated powder	:	Cream to yellow, homogeneous free flowing powder
Appearance of Prepared medium	:	Yellow colored, clear to slightly opalescent gel



After addition of Egg Yolk emulsion and Tellurite emulsion : Yellow coloured, opaque gel

pH (at 25°C) : 7.0 ± 0.2

INTERPRETATION

Cultural characteristics observed with added Egg Yolk emulsion (TS 002) & Potassium tellurite (TS 003), after an incubation. Recovery rate is considered 100% for bacteria growth on Soya Agar.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Colour of colony	Lecithinase activity	Incubation Temp.	Incubation Period
<i>Staphylococcus aureus</i>	25923	50-100	Luxuriant	>=50%	Grey-black colonies	Positive, opaque zone around the colony	35-37°C	24-48 Hours
<i>Staphylococcus aureus</i>	6538	50-100	Luxuriant	>=50%	Grey-black colonies	Positive, opaque zone around the colony	35-37°C	24-48 Hours
<i>Proteus mirabilis</i>	25933	50-100	Good-Luxuriant	>=50%	Brown-Black	Negative	35-37°C	24-48 Hours
<i>Micrococcus luteus</i>	10240	50-100	Poor-Good	30-40%	Shades of brown-black	Negative	35-37°C	24-48 Hours
<i>Staphylococcus epidermidis</i>	10240	50-100	Poor-Good	30-40%	Black	Negative	35-37°C	24-48 Hours
<i>Escherichia coli</i>	25922	50-100	None-Poor	0-10%	Large brown black	Negative	35-37°C	24-48 Hours
<i>Escherichia coli</i>	8739	50-100	None-Poor	0-10%	Large brown black	Negative	35-37°C	24-48 Hours

PACKAGING

In 100 & 500 gm packaging size.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers below 25°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 powder if they show evidence of microbial contamination, discoloration, drying, or other signs of deterioration.

DISPOSAL










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

REFERENCES

1. Baird-Parker. I App. Bact. 25:12. (1962).
2. Zebovitz E., Evans J.B. and Niven C.F., 1955, J. Bact., 70:686
3. Baird-Parker. J. Ann. Micromiol. 30:409. (1963).
4. Baird-Parker and Devenport J. App. Bact. 28:390. (1965).
5. J. AOAC. 54:728. (1971).
6. International Organization for Standardization (ISO), 1983, Draft ISO/DIS 6888
7. Bureau of Indian Standards IS : 5887 (Part II) 1976, (Second Reprint December 1994).



8. European Pharmacopoeia 6th Ed. (2007).

 GMP Good Manufacturing Practices Certified	 Best Before	 QTY. Quantity	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 LOT/ B. NO. Lot / Batch Number	 Consults Instructions for Use	 QR Code	

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

***For Lab Use Only**

Revision: 05th Oct. 2019