TM 2000 – BAIRD PARKER AGAR W/O EGG YOLK EMULSION

INTENDED USE

Recommended for direct enumeration of coagulase positive Staphylococci.

PRODUCT SUMMARY AND EXPLANATION

Baird Parker Agar was developed by Baird Parker from the Tellurite-glycine formulation of Zebovitz et al for isolation and enumeration of Staphylococci in food and other material since it allows a good differentiation of coagulase positive strains. A high correlation has been found between the coagulase test and the presence of clear zone of lipolysis in this medium, which is due to the lecithinase of Staphylococci that breakdown, the egg yolk. The limitation of the medium is inadequacy of the egg yolk clearing activity to differentiate *S. aureus* from other contaminant bacteria. Baird Parker Agar without the addition of Egg Yolk Emulsion for isolation of Staphylococci from food samples was found to be less inhibitory to *Staphylococcus aureus* than other media at the same time being more selective. This medium successfully replaces Egg yolk emulsion with Tween 80 and Magnesium chloride. The efficacy of the medium was compared with Baird Parker Agar Base, and the results were found to be comparable.

Alternatively, the medium can also be tested using Fibrinogen Plasma Trypsin Inhibitor supplement. On this medium, coagulase positive colonies appear white to grey-black surrounded by an opaque zone due to coagulase activity within 24-48 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.

COMPOSITION

Ingredients	Gms / Ltr
Tryptone	10.000
Beef extract	10.000
Yeast extract	5.000
Dipotassium hydrogen phosphate	2.600
Sodium acetate	5.000
Triammonium citrate	2.000
Magnesium sulphate heptahydrate	0.200
Manganese sulphate tetrahydrate	0.050
Tween 80 (Polysorbate 80)	1.000
Maltose	2.000
Agar	12.000

PRINCIPLE

Tryptone, beef extract and yeast extract are sources of nitrogen, carbon, long chain amino acids, sulphur and vitamins. Tween 80 and Magnesium ions helps for identification of coagulase activity. Maltose is the source of carbohydrate. Sodium acetate has an inhibitory effect on gram-negative bacteria.

INSTRUCTION FOR USE

- Dissolve 47.73 grams (the equivalent weight of dehydrated media per litre) in 1000 ml purified / 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.
- Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium : Yellow coloured slightly opalescent gel forms in Petri plates.
pH (at 25°C) : 7.0±0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Coagulase activity	Incubation Temperature	Incubation Period
Staphylococcus aureus subsp. aureus	6538	50 -100	Luxuriant	>=70%	Positive, clear zone around the colony	35-37°C	24-48 Hours
Staphylococcus aureus subsp. aureus	25923	50 -100	Luxuriant	>=70%	Positive, clear zone around the colony	35-37°C	24-48 Hours
Staphylococcus epidermidis	12228	50 -100	Poor-good	10-40%	Negative	35-37°C	24-48 Hours
Proteus mirabilis	25933	50 -100	Good-luxuriant	>=50%	Negative	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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5. R. Victoria Lachica, 1984 Egg Yolk-Free Baird-Parker Medium for the Accelerated Enumeration of Foodborne Staphylococcus aureus.
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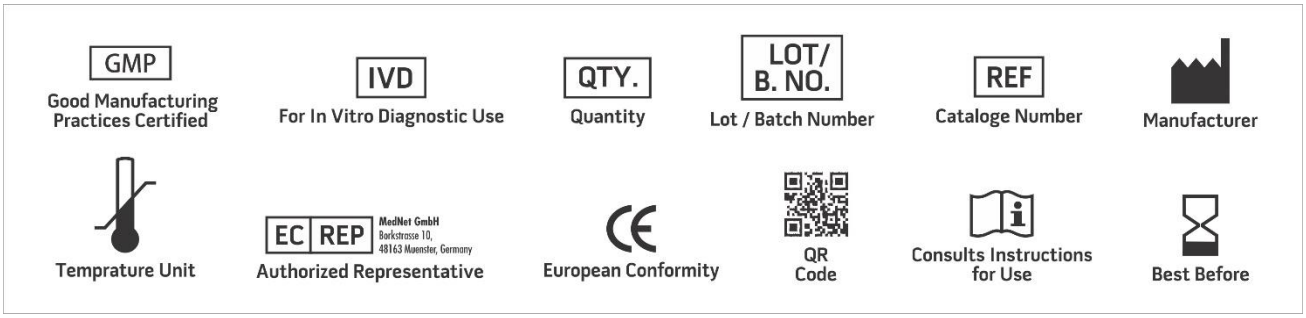

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

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