TMV 358 – BAIRD PARKER AGAR BASE (VEG.)

INTENDED USE

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

PRODUCT SUMMARY AND EXPLANATION

Veg Baird Parker Agar Base is prepared by using vegetable peptones which are free from BSE/TSE risks. This medium is modification of medium developed by Baird Parker from the tellurite - glycine formulation of Zebovitz et al for isolation of *Staphylococcus aureus* from foods. Proteolytic bacteria produce a clear zone around colony in egg yolk containing media. A clear zone and grey-black colonies on this medium are diagnostic for coagulase positive Staphylococci. Upon further incubation, an opaque zone is developed around colonies, which can be due to lipolytic activity. This medium, like the conventional medium is found to be less inhibitory to *Staphylococcus aureus* than other media, at the same time being more selective.

However, identity of *Staphylococcus aureus* isolated on Baird-Parker Veg Agar must be confirmed with a coagulase reaction. Baird-Parker Veg Agar Base can also be used to detect coagulase activity by adding Fibrinogen Plasma Trypsin Inhibitor Supplement dissolved in 10 ml sterile distilled water added to 90 ml sterile molten medium kept at 45-50°C. Mix well and pour into plates. On this medium coagulase positive Staphylococcal 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
Ved hydrolysate	10.000
Veg exract	5.000
Yeast extract	1.000
Glycine	12.000
Sodium puruvate	10.000
Lithium chloride	5.000
Agar	20.000

PRINCIPLE

Glycine, pyruvate enhances growth of Staphylococcus. With the addition of egg yolk the medium becomes light yellow, opaque. Proteolytic bacteria produce a clear zone around colony in egg yolk containing media. A clear zone and grey-black colonies on this medium are diagnostic for coagulase positive Staphylococci.

INSTRUCTION FOR USE

- Dissolve 63.0 grams in 950 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 50°C and aseptically add 50 ml concentrated Egg Yolk Emulsion and 3 ml sterile 3.5% Potassium Tellurite solution or 50 ml Egg Yolk Tellurite Emulsion.

- For additional selectivity, if desired add rehydrated contents of 1 vial of BP Sulpha Supplement. Alternatively, 1 vial of Fibrinogen Plasma Trypsin Inhibitor Supplement may be used per 90 ml medium in place of Egg yolk Tellurite Emulsion for identification of coagulase, positive Staphylococci.
- Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Light yellow coloured may have slightly greenish tinge homogeneous, free flowing powder.

Appearance of prepared medium : Basal medium yields light amber coloured, clear to slightly opalescent gel. With addition of Egg Yolk Tellurite Emulsion yellow coloured, opaque 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	Colour of colony	Lecithinase	Incubation Temperature	Incubation Period
Staphylococcus aureus subsp. aureus	6538	50 -100	Luxuriant	>=70%	Grey-black shiny	Positive, opaque zone around the colony	35-37°C	24-48 Hours
Staphylococcus epidermitidis	12228	50 -100	Poor-good	10-40%	Black	Negative	35-37°C	24-48 Hours
Proteus mirabilis	25933	50 -100	Good-luxuriant	>50%	Brown-black	Negative	35-37°C	24-48 Hours
Micrococcus luteus	10240	50 -100	Poor-good	10-40%	Shades of brown-black (very small)	Negative	35-37°C	24-48 Hours
Staphylococcus epidermidis	12228	50 -100	Poor-good	10-40%	Black	Negative	35-37°C	24-48 Hours
Bacillus subtilis subsp. spizizenii	6633	50 -100	None-poor	0-10%	Dark brown matt	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

1. Baird-Parker, A.C. 1962, J. Appl. Bact., 25:12.
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3. Zebovitz, E., Evans J.B. & Niven C.F., (1955), J. Bact; 70:686.
4. Tardio and Baer,1971, J. Assoc. Off. Anal. Chem., 54:72.
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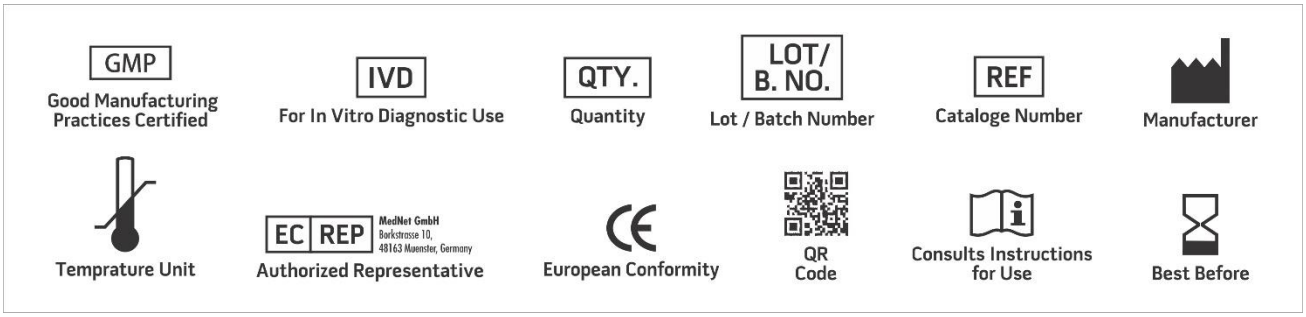

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

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