TM 2278 – PHENYLETHYL ALCOHOL AGAR

INTENDED USE

For the isolation of gram- positive organisms like Staphylococci and Streptococci.

PRODUCT SUMMARY AND EXPLANATION

Phenylethyl alcohol is a chemical agent that exhibits inhibitory action against gram-negative and certain gram-positive bacteria. Phenylethyl Alcohol Agar is formulated as per Lilley and Brewer for the selective isolation of gram-positive bacteria. This medium can be supplemented with 5 % sheep blood. This medium is especially useful when specimens are contaminated with swarming Proteus species. It is also useful in the diagnostic studies of wounds and exudate cultures. However, Phenylethyl Alcohol Agar can't be used to study haemolytic reactions as the results are atypical.

COMPOSITION

Ingredients	Gms / Ltr
Casein enzymic hydrolysate	15.000
Soya peptone	5.000
Phenylethyl alcohol	2.500
Sodium chloride	5.000
Agar	15.000

PRINCIPLE

The medium consists of Casein enzymic hydrolysate and soya peptone which provide nitrogen, carbon, sulfur and trace elements to the growing organisms. Addition of sheep blood provides many growth factors. Sodium chloride maintains osmotic equilibrium. Addition of phenylethanol to a nutritive medium permits the growth of gram-positive organisms but inhibits the gram-negative organisms found in the same specimen. Phenylethyl alcohol exerts inhibitory bacteriostatic action on gram-negative bacteria by inhibiting their DNA synthesis.

INSTRUCTION FOR USE

- Dissolve 42.5 grams in 1000 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- To get more inhibition add Phenylethyl Alcohol.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- For the preparation of blood agar add 5% v/v sterile defibrinated blood to the sterile molten medium cooled to 45-50°C.
- Mix well before pouring into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.

Appearance of prepared medium : Basal medium: Light amber coloured clear to slightly opalescent gel. After addition of 5%v/v sterile defibrinated blood : Cherry red coloured opaque gel forms in Petri plates.

pH (at 25°C) : 7.3 ± 0.2

INTERPRETATION

Cultural characteristics observed with added 5% v/v sterile defibrinated blood after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Staphylococcus aureus	25923	50-100	Good-luxuriant	>=50%	35-37°C	18-48 Hours
Enterococcus faecalis	29212	50-100	Good-luxuriant	>=50%	35-37°C	18-48 Hours
Streptococcus pyogenes	19615	50-100	Good-luxuriant	>=50%	35-37°C	18-48 Hours

PACKAGING:

In pack size of 100 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 10-25°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.

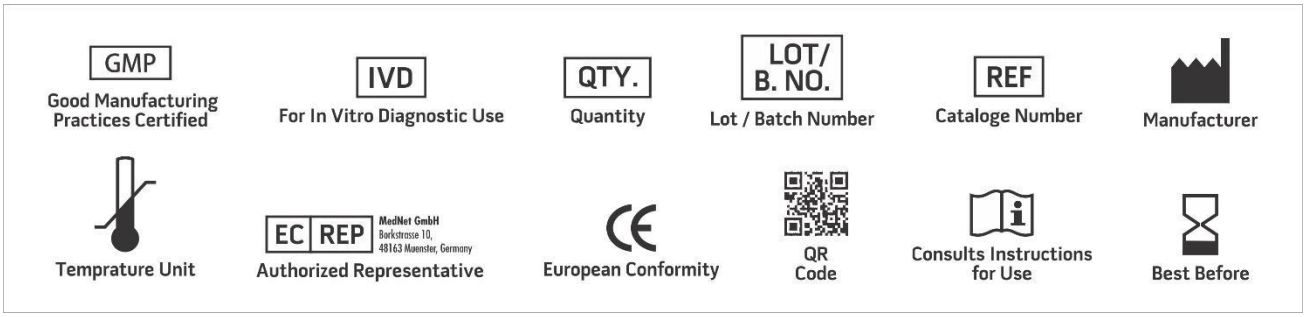
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

1. Lilley B. D. and Brewer J. H., 1953, J. Am. Pharm. Assoc., 42:6.
2. Holzman J. A., 1958, Am. J. Med. Technol., 24 (5), 327,342
3. Dowell, Hill and Altemeier, 1964, J. Bacteriol., 88:1811.



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

***For Lab Use Only**

Revision: 25 July., 2023