TM 2192 - M-KLEB AGAR BASE

INTENDED USE

Recommended for selective isolation and differentiation of *Klebsiella* from water and other sources.

PRODUCT SUMMARY AND EXPLANATION

m-Kleb Agar Base is recommended for isolation and differentiation of *Klebsiella* species by membrane filtration method *Klebsiella pneumoniae* strains are widely distributed in the environment and contribute to biochemical and geochemical process. *K. pneumoniae* bacteria may be oppurtunistic pathogens that can give rise to bacteremia, pneumonia, urinary tract, and several other types of human infection. It also proves to be the source of lung infections that generally occur in patients with debilitating conditions such as alcoholism, diabetes mellitus, and chronic obstructive pulmonary disease. *K. pneumoniae* are also excreted in the faeces of many healthy humans and animals, and they are readily detected in sewage polluted waters.

K. pneumoniae produces a deep blue to bluish green coloured colony thereby aiding in the easy detection of the organisms. Most of the frequently encountered gram-negative faecal contaminants are inhibited on this media using a selective supplement.

COMPOSITION

Ingredients	Gms / Ltr
Proteose peptone	10.000
Beef Extract	1.000
Sodium chloride	5.000
Inositol	5.000
Aniline Blue	0.100
Phenol red	0.025
Sodium lauryl sulphate	0.100
Agar	15.000

PRINCIPLE

Proteose peptone, Beef Extract provides nitrogenous and carbonaceous compounds, long chain amino acids, vitamins and other essential nutrients required for the growth of the organism. Inositol us the fermentable carbohydrate. Neutral red and aniline blue are the pH indicators. Sodium chloride maintains the osmotic equilibrium of the medium. Sodium lauryl sulphate (SLS) inhibit most of the accompanying flora. Addition of the selective supplement further increases the selectivity of the medium.

INSTRUCTION FOR USE

- Dissolve 36.22 grams in 980 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.
- Add 20ml of 95% Ethyl alcohol to 980ml of media and aseptically add rehydrated contents of two vials of Klebsiella Selective Supplement.
- Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Light yellow to pink homogeneous free flowing powder
Appearance of prepared medium : Reddish purple coloured, clear to slightly opalescent gel forms in Petri plates
pH (at 25°C) : 7.4±0.2

INTERPRETATION

Cultural characteristics observed on membrane filter with added Klebsiella Selective Supplement after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Colour of Colony	Incubation Temperature	Incubation Period
Klebsiella aerogenes	13048	>=10^3	inhibited	0%	-	35-37°C	18-24 Hours
Escherichia coli	25922	>=10^3	inhibited	0%	-	35-37°C	18-24 Hours
Salmonella Typhimurium	14028	>=10^3	inhibited	0%	-	35-37°C	18-24 Hours
Klebsiella pneumoniae	13883	50-100	luxuriant	>=70 %	Deep blue-bluish green	35-37°C	18-24 Hours
Klebsiella pneumoniae	700603	50-100	luxuriant	>=70 %	Deep blue-bluish green	35-37°C	18-24 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.

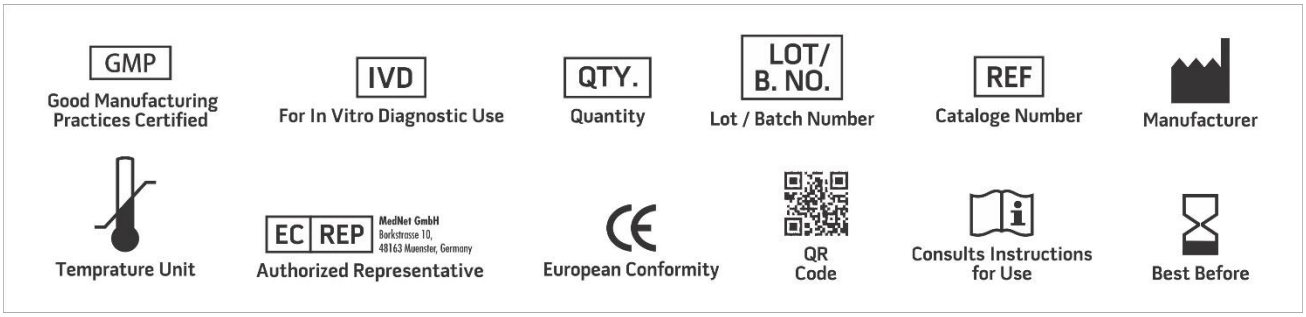
DISPOSAL

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

REFERENCES

1. Krieg, N. R., and J. G. Holt, (Eds.), 1984, Bergeys Manual of Systematic Bacteriology, Vol. 1, p. 408 - 516. The Williams and Wilkins Co., Baltimore, MD.

2. Wyngaarden J. B., Smith L. H., (Eds.), Cecil Text book of Medicine,16th Ed, pp 1430 -1432, Philadelphia, W. B. Saunders, 1982.
3. Standard methods, For the examination of water and wastewater, 22nd edition, Eugene W. Rice, Rodger B. Baird, Andrew D. Eaton, Lenore S. Clesceri.
4. Greenberg A. E., Clesceri L. S. and Eaton A. D., (Eds.), 2005, Standard Methods for the Examination of Water and Wastewater, 21st ed., APHA, Washington, D.C.
5. Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.
6. Jorgensen,J.H, Pfaller , M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.



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

***For Lab Use Only**

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