TM 138 - KF STREPTOCOCCUS AGAR BASE W/ BCP

INTENDED USE
For detection and enumeration of faecal Streptococci.

PRODUCT SUMMARY AND EXPLANATION
Streptococci are spherical, gram-positive bacteria and form a part of the normal commensal flora of the mouth, skin, intestine, upper respiratory tract of humans. Streptococci found in the faeces form the faecal Streptococci and constitute of Streptococci with group D Lancefield antigens. The types include *Streptococcus faecalis, Streptococcus faecium, Streptococcus bovis* and *Streptococcus duran*. They are low-grade pathogens and rarely cause disease. However, they may cause urinary tract infection in catheterized patients; mixed abdominal wound infections following gut surgery; and endocarditis on abnormal valves. Kenner - Faecal (KF) Medium were developed by Kenner et al for detecting Streptococci in water and food materials.

COMPOSITION

Ingredients	Gms / Ltr
Proteose peptone	10.000
Yeast extract	10.000
Sodium chloride	5.000
Sodium β-glycerophosphate	10.000
Maltose	20.000
Lactose	1.000
Sodium azide	0.400
Bromocresol purple	0.015
Agar	20.000

PRINCIPLE
Proteose peptone along with yeast extract provide nitrogen, carbon, sulphur, amino acids, vitamins and trace ingredients to the faecal Streptococci. Lactose and maltose are the fermentable carbohydrates and therefore serve as energy sources. Sodium azide is a selective agent, which hampers the growth of gram-negative bacteria.
2,3,5-Triphenyl Tetrazolium Chloride is reduced to insoluble formazan by actively metabolizing cells, resulting in the formation of pink or red colonies. Bacteria resistant to azide, utilize lactose and / or maltose. The acidity so produced changes the colour of the indicator dyes to yellow. Bacterial cells reduce TTC to insoluble formazan, resulting in the formation of pink to red colonies.

INSTRUCTION FOR USE
- Dissolve 76.41 grams in 1000 ml purified/distilled water.
- Heat to boiling to dissolve the medium completely, do not autoclave.
- Overheating will lower the pH and render the medium less productive.
- Cool to 45-50°C and aseptically add 10 ml of 1% 2, 3, 5-Triphenyl Tetrazolium Chloride (TTC) to sterile medium.
- Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to greyish yellow homogeneous free flowing powder.
Appearance of prepared medium : Light purple coloured, clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C) : 7.2±0.2

INTERPRETATION

Cultural characteristics observed with added TTC solution 1%, 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	48-72 Hours
Enterococcus faecalis	29212	50-100	Good-luxuriant	>=50%	Red-maroon	35 - 37°C	48-72 Hours
Escherichia coli	25922	>=10^3	Inhibited	0%	-	35 - 37°C	48-72 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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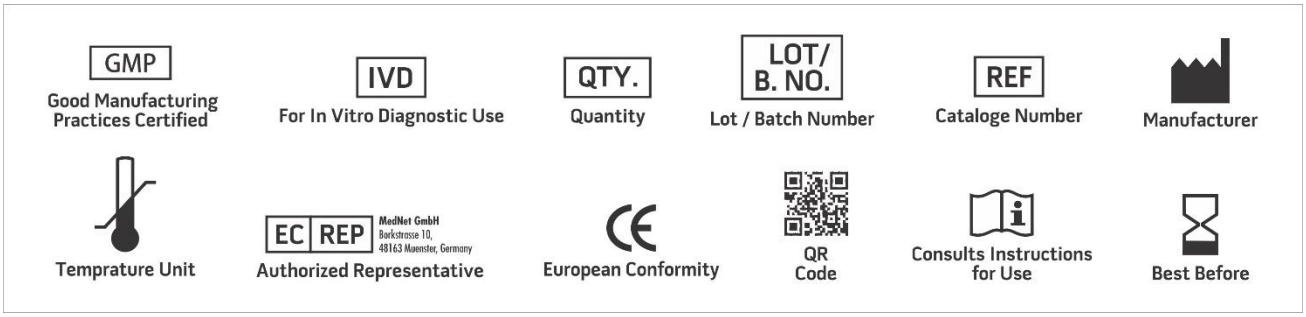

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

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