CM 20857 - KF STREPTOCOCCAL AGAR BASE

INTENDED USE

For selective isolation and enumeration of faecal Streptococci in surface water by direct plating or by membrane filter technique.

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 was developed by Kenner et al for detecting Streptococci in water and food materials. KF Streptococcus Agar Base is recommended by APHA for enumerating faecal Streptococci in food materials. 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.
Samples can be directly streaked or sterile membrane filters through which the water samples have been passed are aseptically placed on the media. After an incubation at 35-37°C for 24-48 hours, Enterococci appear as pink to red colonies. After this presumptive identification, further confirmatory tests should be carried out.

COMPOSITION

Ingredients	Gms / Ltr
Peptone, special	10.000
Yeast extract	10.000
Sodium chloride	5.000
Sodium glycerophosphate	10.000
Maltose	20.000
Lactose	1.000
Sodium azide	0.400
Agar	20.000

PRINCIPLE

Special peptone 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.

INSTRUCTION FOR USE

Dissolve 76.4gramsin1000 ml purified/ distilled water.
Add rehydrated contents of 1 vial of Bromo Cresol Purple.
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).
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 : Basal medium: Light yellow. After addition of (Bromo Cresol Purple): Light purple coloured clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C) : 7.2±0.2

INTERPRETATION

Culturalcharacteristics observed with added TTC solution 1% and Bromo Cresol Purple, 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	Luxuriant	>=70%	Red-maroon	35 - 37°C	48-72 Hours
Enterococcus faecalis	19433	50-100	Luxuriant	>=70%	Red-maroon	35 - 37°C	48-72 Hours
Escherichia coli	25922	>=10^3	Inhibited	0%	-	35 - 37°C	48-72 Hours

PACKAGING:

Inpacksizeof100 gm and 500 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

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

REFERENCES

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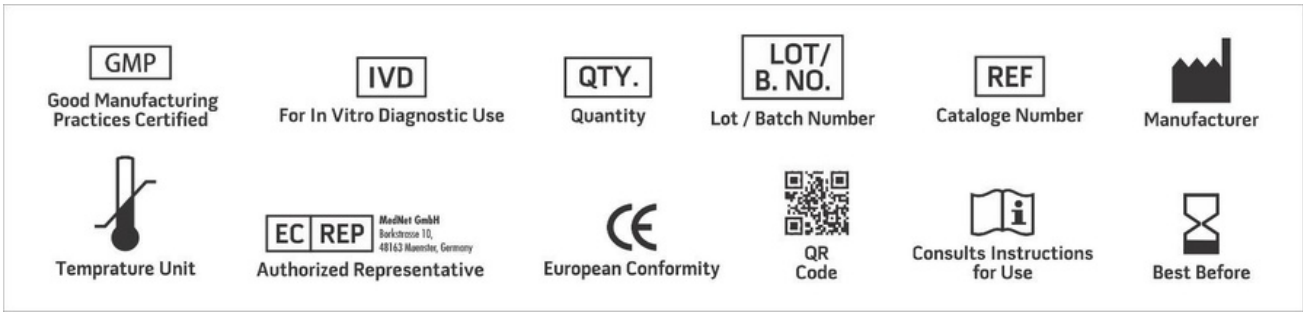

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

*For LabUse Only