CM 22,202-CHROMOGENIC M-LAURYL SULPHATE AGAR

INTENDED USE
For enumeration and differentiation of E. coliand other coliforms by membrane filter technique.

PRODUCT SUMMARY AND EXPLANATION
ChromogenicM-Lauryl Sulphate Agaris usedfor the differentiation and enumeration of Escherichia coli and other coliforms through the membrane filtration technique. The presence of chromogenic mixture and the dye phenol red helps in differentiation of E.coli and other coliforms on the basis of color. It can also be used to isolate E.coli from clinical samples.

COMPOSITION

Ingredients	Gms / Ltr
Peptone	40.000
Lactose	30.000
Agar	10.000
Yeast extract	6.000
Sodium lauryl sulphate	1.000
Sodium pyruvate	0.500
Phenol red	0.200
X-Glucuronide (BCIG)	0.200

PRINCIPLE
Medium contains PeptoneandYeast extract which provide amino acids, vitamins and other complex substances. Phenol red is used as a pH indicator,detecting lactose fermentation and producing yellow colonies when acid is produced. Lactose acts as a sourceoffermentable sugar while sodium lauryl sulphate inhibits organisms other than coliforms. Sodium pyruvate protectsinjured cells, helps recovery of coliforms and enhances growth. The enzyme β-glucuronidase released by E.coli, cleavesX-Glucuronide, imparting blue color to the colony which turns green due to lactose-fermentation. Agar is thesolidifying agent.

INSTRUCTIONFOR USE
Suspend 87.90gramsin 1000 ml distilled water.
Gently heat with swirling to dissolve the medium completely.
Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
Cool at 40 - 50ºC
Mix well and dispense into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	:	Light yellow to pink homogeneous free flowing powder
Appearance of prepared medium	:	Red colour, clear to slightly opalescent gel
pH (at 25°C)	:	7.4± 0.2

INTERPRETATION
Culturalcharacteristics observed after incubation. Recovery rate is considered 100% for bacteria growth on Soya Agar.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Colour of colony	Incubation Temp.	Incubation Period
Escherichia coli	25922	50-100	Luxuriant	>=50%	Green	35-37°C	18-24 Hours
Salmonella Enteritidis	27853	50-100	Good	40-50%	Pink	35-37°C	18-24 Hours
Klebsiella pneumoniae	13883	50-100	Good	40-50%	Yellow, mucoid	35-37°C	18-24 Hours
Staphylococcus aureus	25923	≥1000	Inhibited	0%	-	35-37°C	18-24 Hours

PACKAGING

Inpacksizeof100gm & 500gm bottles.

STORAGE

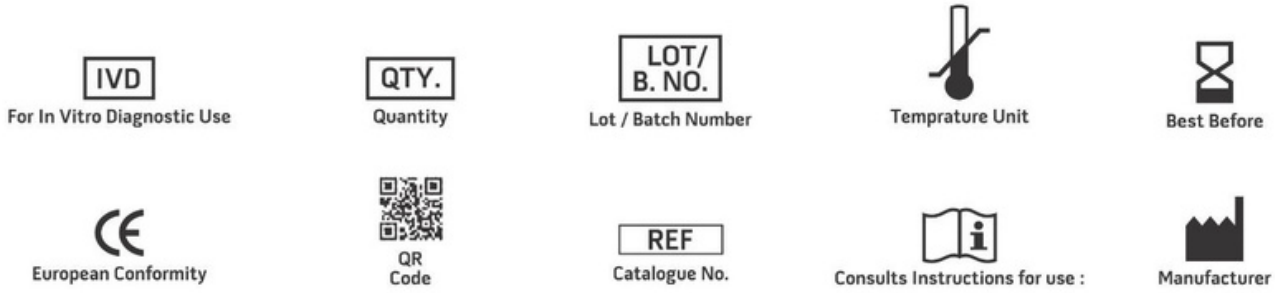
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 2-8°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided 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 powder 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

1. Mara,D. D. A single medium for the rapid detection of Escherichia coli at 44°C. J. Hyg. 71:783-785. (1973).
2. Pugsley, A. P., L. J. Evision, and A. James. A simple technique for the differentiation of Escherichia coli in water examination. Water RES. 7:1431-1437. (1973).
3. The Environment Agency, Methods for Examination of Waters and Associated Material. The Microbiology of Drinking Water. (2002).



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

*For Lab Use Only