

CM 21046 - M-EC TEST AGAR

INTENDED USE

For testing *Escherichia coli* in water samples using membrane filter technique.

PRODUCT SUMMARY AND EXPLANATION

M-EC Test Agar is recommended for the detection, differentiation and enumeration of *Escherichia coli* and coliforms in water using membrane filter technique. It is used in the examination of food, water, ingredients and raw materials to detect the presence of indicator groups such as coliforms. It is one of the most common tests performed in a microbiology laboratory, partly because there is accomplishment of these tests due to relative ease and speed. It claims the drinking water is safe and presence of these organisms indicates failure of the process. It acts as a valuable bacterial indicator which determines the extent of faecal contamination of drinking water or recreational surface waters.

COMPOSITION

Ingredients	Gms / Ltr
Yeast extract	3.000
Proteose peptone	5.000
Lactose	10.000
Sodium Chloride	7.500
Bromophenol red	0.080
Bromocresol purple	0.080
Dipotassium phosphate	3.300
Monopotassium phosphate	1.000
Sodium lauryl sulphate	0.200
Sodium deoxycholate	0.100
Agar	15.000

PRINCIPLE

Proteose peptone and yeast extract provide the necessary nutrients for the growth of coliforms. Lactose acts as a fermentable carbohydrate as well as a carbon source in the medium. Bromocresol purple and bromophenol red act as pH indicators. Sodium deoxycholate and sodium lauryl sulphate are the inhibitors of the growth of contaminating gram-positive microorganisms.

INSTRUCTION FOR USE

Dissolve 45.26 grams in 1000 ml distilled water.

Heat to boiling to dissolve the medium completely with frequent agitation. Do not autoclave or overheat.

Cool to about 50°C.

Mix and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Light yellow to green homogeneous free flowing powder
Appearance of prepared medium	: Purple coloured clear to slightly opalescent gel forms in Petri plates
pH (at 25°C)	: 7.3 ± 0.2

INTERPRETATION



Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Color of colony	Incubation Temperature	Incubation Period
<i>Escherichia coli</i>	25922	50-100	Luxuriant	>=70%	Yellow	35-37°C	18-24 Hours
<i>Staphylococcus aureus</i>	25923	>=10 ³	Inhibited	0%	-	35-37°C	18-24 Hours
<i>Enterococcus faecalis</i>	29212	>=10 ³	Inhibited	0%	-	35-37°C	18-24 Hours

PACKAGING:

In pack size of 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. Corry J. E. L., Curtis G. D. W., and Baird R. M., Culture Media for Food Microbiology, Vol. 34, Progress in Industrial Microbiology, 1995, Elsevier, Amsterdam
2. Eaton A. D., Clesceri L. S. and Greenberg A W., (Eds.), 2005, Standard Methods for the Examination of Water and Wastewater, 21st Ed., APHA, Washington, D.C.

 Good Manufacturing Practices Certified	 Best Before	 Quantity	 Catalogue Number	 Manufacturer
 Temperature Unit	 Lot / Batch Number	 Consults Instructions for Use	 QR Code	

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

***For Lab Use Only**



