

TM 2122 – CHROMOGENIC ECC SELECTIVE AGAR BASE, MODIFIED

INTENDED USE

For detection of *Escherichia coli* and coliforms in water and food samples.

PRODUCT SUMMARY AND EXPLANATION

Chromogenic ECC Selective Agar, Modified is a selective medium recommended for the simultaneous detection of *Escherichia coli* and total coliforms in water and food samples. The chromogenic mixture contains two chromogenic substrates. The enzyme β -D-galactosidase produced by coliforms cleaves one of the chromogen to form salmon to red coloured colonies. The enzyme β -D-lucuronidase produced by *E.coli*, cleaves X-glucuronide, the other chromogen. Colonies of *E.coli* give dark blue to violet coloured colonies due to cleavage of both the chromogens.

COMPOSITION

Ingredients	Gms / Ltr
Potassium Nitrate	1.000
Sorbitol	1.000
Sodium lauryl sulphate	0.200
Chromogenic mixture	0.200
Agar	15.000
Peptone	10.000
Sodium dihydrogen phosphate	2.200
Disodium hydrogen phosphate	2.700
Sodium chloride	5.000
Sodium pyruvate	1.000
L-Tryptophan	1.000

PRINCIPLE

Addition of L- Tryptophan improves the indole reaction, thereby increasing the detection reliability. Peptone provide nitrogenous and carbonaceous compounds, long chain amino acids and other essential growth nutrients for the organisms. Sodium pyruvate serves as a growth factor and sorbitol is the fermentable carbohydrate Phosphates buffer the medium. The media formulation helps even sub lethally injured coliforms to recover and grow rapidly. Sodium lauryl sulphate inhibits gram positive bacteria.

INSTRUCTION FOR USE

- Dissolve 39.30 grams in 1000 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15lbs pressure (121°C) for 15 minutes.
- Cool to 45-50°C.
- 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 : Light yellow coloured, clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C) : 7.0 ± 0.2

INTERPRETATION

Cultural characteristics observed after an incubation.

Microorganisms	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Color of the medium	Incubation Temperature	Incubation Period
<i>Escherichia coli</i>	25922	50-100	luxuriant	>=50%	Dark blue	35-37°C	18- 24 Hours
<i>Klebsiella aerogenes</i>	13048	50-100	luxuriant	>=50%	Pink	35-37°C	18- 24 Hours
<i>Klebsiella pneumoniae</i>	13883	50-100	luxuriant	>=50%	Pink	35-37°C	18- 24 Hours
<i>Citrobacter freundii</i>	8090	50-100	luxuriant	>=50%	Pink	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 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 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.Frampton E.W., Restaino L. and Blascko N., 1988, J.Food Prof., 51:402.
- 2.Kilian M. and Bülow P., 1976, Acta. Pathol. Microbiol. Scand Sect. B, 84:245.
- 3.LeMinor L. and Hamida F., 1962, Ann. Inst. Pasteur 102:267.
- 4.Manafi M. and Kneifel W., 1989, Zentralbl. Hyg., 189:225.

 GMP Good Manufacturing Practices Certified	 Best Before	 QTY. Quantity	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 LOT/ B. NO. 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**
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