TM 2127 – CHROMOGENIC M-COLICONFORM BROTH

INTENDED USE

Recommended for detection of *E.coli* & other total coliforms in water samples by membrane filtration.

PRODUCT SUMMARY AND EXPLANATION

This is a selective medium recommended for the simultaneous detection of *Escherichia coli* and total coliforms in water. The water sample is filtered through membranes and then placed on pad saturated with medium and incubated at 35 ±5°C for 24 hours in sealed Petri plates.

COMPOSITION

Ingredients	Gms / Ltr
Tryptone	8.000
Lactose	0.600
Yeast extract	0.500
Dipotassium hydrogen phosphate	1.750
Potassium dihydrogen phosphate	1.250
Sodium pyruvate	1.000
Chromogenic mixture	0.200
Octyphenol ethoxylate	0.500
Magnesium sulphate	0.300
Sodium azide	0.02
Sodium chloride	3.000
L-Methionine	0.100
Methylene blue	0.016
Cyclohexylammonium salt	0.200

PRINCIPLE

Tryptone provides nitrogenous and carbonaceous compounds, long chain amino acids and other essential nutrients. Yeast extract serves as a source of vitamins. Lactose is the fermentable carbohydrate. The phosphates in the medium buffers the medium. Sodium chloride maintains the osmotic balance. The enzyme beta-glucuronidase produced by *E.coli* utilizes the chromogenic substrate to produce blue-purple coloured colonies. Coliforms other than *Escherichia coli* turn red as they reduce TTC (2, 3, 5-triphenyl tetrazolium chloride). Thus, the resulting colour distinction allows simple interpretation of test without further confirmation. Methylene blue and ECC selective supplement containing imparts selectivity to the medium. Non-coliforms usually give white coloured colonies.

INSTRUCTION FOR USE

- Dissolve 17.43 grams in 1000 ml distilled water.
- Heat if necessary to dissolve the medium completely. Do not autoclave.
- Cool to 45-50°C. Aseptically add the rehydrated contents of ECC Selective Supplement and 7 ml of TTC Solution, 1%.

- Mix well and aseptically add desired quantity (2 to 5 ml) of broth on sterile absorbent cotton pad or sterile filter paper for saturation. The nutrient pad should be used within 24 hours of saturation.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder

Appearance of prepared medium : Cream, clear to slightly opalescent solution, may have slight precipitate.

pH (at 25°C) : 7.0 ± 0.2

INTERPRETATION

Cultural characteristics observed after an incubation.

Microorganisms	ATCC	Inoculum (CFU/ml)	Growth	Color of the medium	Incubation Temperature	Incubation Period
Escherichia coli	25922	50-100	luxuriant	Blue	34.5-35.5°C	24 Hours
Citrobacter freundii	8090	50-100	luxuriant	Red	34.5-35.5°C	24 Hours
Klebsiella pneumoniae	13883	50-100	luxuriant	Red	34.5-35.5°C	24 Hours
Enterococcus faecalis	29212	>=10^3	Inhibited		34.5-35.5°C	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.

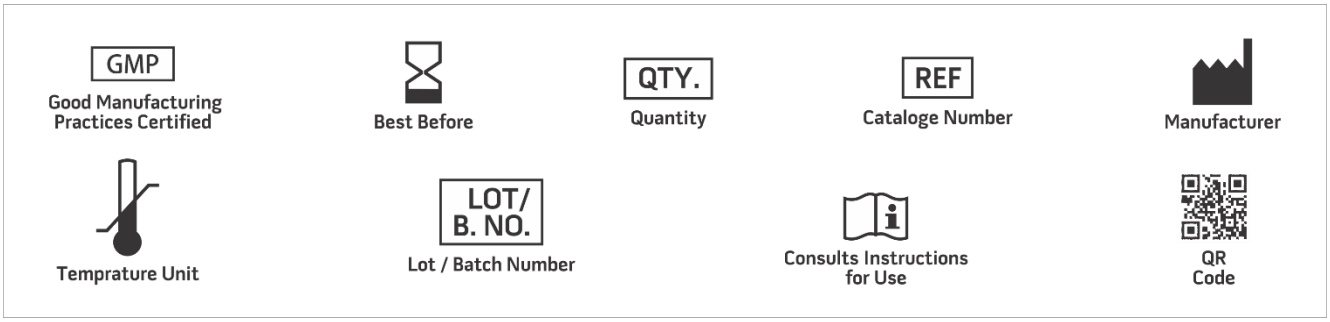
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

1. Baird R.B., Eaton A.D., and Rice E.W., (Eds.), 2015, Standard Methods for the Examination of Water and Wastewater, 23rd ed., APHA, Washington, D.C.
2. Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.
3. Jorgensen,J.H., Pfaller , M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1. 3. Draft Amendment ISO 11290-2:1996/DAM 1.



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

***For Lab Use Only**

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