

TM 2119 – CHROMOGENIC E.COLI AGAR

INTENDED USE

For the detection and enumeration of *Escherichia coli* in foods without further confirmation on membrane filter or by indole reagent.

PRODUCT SUMMARY AND EXPLANATION

Chromogenic E.coli Agar is based on Tryptone Bile Agar to detect *Escherichia coli* in foods, where recovery of *E.coli* is faster, more reliable and accurate. Most of the *E.coli* strains can be differentiated from other coliforms by the presence of enzyme glucuronidase, which is highly specific for *E.coli*. The chromogenic agent X-glucuronide used in this medium helps to detect glucuronidase activity of *E.coli*. *E.coli* cells absorb X-glucuronide and the intracellular glucuronidase enzyme splits the bond between the chromophore and the glucuronide. The released chromophore gives bluish green coloration to the *E.coli* colonies. This medium is recommended for isolation of *E.coli* from water, food and clinical samples.

COMPOSITION

Ingredients	Gms / Ltr
Peptone, special	5.000
Tryptone	14.000
Bile salts mixture	1.500
Agar	12.000
Disodium hydrogen phosphate	1.000
Sodium dihydrogen phosphate	0.600
X-Glucuronide	0.075
Sodium chloride	2.400

PRINCIPLE

Tryptone and peptone special provides carbon, nitrogen compounds, long chain amino acids, vitamins and other essential growth nutrients to the organisms. Bile salts mixture inhibits gram-positive organisms. Sodium chloride and phosphates maintain osmotic balance and buffering action respectively. The surface of the plated medium is dried before use. Dilute food samples 1:5 or 1:10 with 0.1% (w/v) sterile Peptone Water and homogenize in a blender or a stomacher. Pipette 0.5 ml or 1.0 ml of the homogenized food sample on to the plate and spread with sterile glass spreader. Incubate the plates at 30°C for 4 hours and then at 44°C for 18 hours.

INSTRUCTION FOR USE

- Dissolve 36.57 grams in 1000 ml purified/distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 lbs 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) : 7.2 ± 0.2

INTERPRETATION

Cultural characteristics observed after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Color of the colony	Incubation Temperature	Incubation Period
<i>Salmonella</i> Enteritidis	25923	50-100	luxuriant	>=50%	Colorless	44°C	18-24 Hours
<i>Staphylococcus aureus</i> subsp. <i>aureus</i>	25923	>=10 ⁴	Inhibited	0%	-	44°C	18-24 Hours
<i>Escherichia coli</i>	25922	50-100	luxuriant	>=50%	Bluish green	44°C	18-24 Hours

PACKAGING:

In pack size of 100 gm and 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 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. Anderson J.M. and Baird-Parker A.C., 1975, J.Appl. Bacteriol., 39:111.
2. Hansen W. and Yourassawsky E., 1984, J. Clin. Microbiol., 20:1177.



 GMP 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**
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