

E.Coli & Coliforms Chromogenic Medium

Catalog : HB7003-7

E.Coli & Coliforms Chromogenic Medium is used for fast, accurate simultaneous detection of E. coli and Coliform bacteria, incubated for 24 hours, E. coli was blue-green - purple, coliform is red.

Approximate Formula:

Ingredients	gm/liter
Special Nutrients	33.0
Mixed Chromogenic reagent	0.3
Agar	13.0
Final pH 7.0 ± 0.2 at 25 °C	

*Adjusted and/or supplemented as required to meet performance criteria

Directions:

Suspend 46.3g of the medium in 1L of distilled water, heat and dissolve with frequently agitation. Boil for in 1 minute, dispensing into flasks, add 1mL prepared sample into a sterile in 9cm petri dish, transfer 15mL chromogenic medium when cooling down to 45-50 °C, mix, inverted culture at 36 ± 1 °C for 18-24h after solidification

Or when cooling down to 45-50 °C, pour into a sterile petri dish, after complete solidification, inverted culture at 37 °C in incubator for 1-2 hours, add 1mL uniform liquid sample with a suitable concentration, streak onto the medium, culture at 36 ± 1 °C for 18-24h.

Principle and Interpretation:

1. Prepared sample solution according to national standards, SN standard, FDA standards or other methods.
2. Transfer 1mL sample onto chromogenic medium cooling down to 45-50 °C, mix thoroughly or coating on plate;
3. Culture at 36 ± 1 °C for 18-24h, select the plate which have 200 to 300 typical colonies of E. coli and coliforms, total count of the colonies on the plate, typically E. coli colonies blue to purple, coliforms are pink, others yellow or colorless colonies.
4. For undermined colonies, streak them on nutrient agar plates, culture at 36 ± 1 °C for 12-16h, select single colony to do full set of E.Coli biochemical tests.

Appearance:

The dehydrate powder medium is homogeneous, having good flowability, milky white, prepared medium is colorless solid.

Precautions:

This medium is for laboratory use only. Dried medium which is past shelf life, caking or color variation cannot be used.

Storage conditions and Shelf life:

The prepared plates must be used immediately, avoid direct exposure to light. The powder medium should be placed in a dark, dry place, storage temperature 2-8 °C, avoid direct exposure to light.

Quality control:

Cultural characteristics observed after an incubation at 36 ± 1 °C for 18-24h:

Microorganism	Strains Number	Growth	Colonies color
Listeria monocytogenes	ATCC27853	-/+	colorless
Staphylococcus aureus	ATCC25923	-/+	blue
E. coli	ATCC25922	+++	colorless
salmonella	ATCC14028	+++	pink
Enterobacter aerogenes	ATCC35029	+++	pink
Freundii Citrobacter	ATCC43864	+++	pink
Klebsiella pneumoniae	ATCC10031	+++	pink

Reference:

1. FRAMPTON, E.W., RESTAINO, L. a. BLASZKO, L.: Evaluation of β-glucuronidase substrate in a 24 hour direct plating method for Escherichia coli. J. Food Protection, 51; 402-404 (1988).

2. KILIAN, M. a. BÜLOW, P.: Rapid diagnosis of Enterobacteriaceae. I. Detection of bacterial glycosidases. Acta Pathol. Microbiol. Scand. Sect. B 84; 245-251 (1976).

3. LE MINOR, L. a. HAMIDA, F. BEN: Avantages de la recherche de la β galactosidase sur celle de la fermentation du lactose en milieu complexe dans le diagnostic bactériologique, en particulier des Enterobacteriaceae. Ann. Inst. Pasteur (Paris), 102; 267-277 (1962).