

CHROMOGENIC COLIFORM AGAR

Chromogenic ready to use medium
for the simultaneous detection of coliforms and *Escherichia coli*.

TYPICAL FORMULA (g/l)

Tryptose	10.00
Tryptophan	0.10
Peptocomplex	5.00
Yeast Extract	3.00
Sodium Chloride	5.00
Bile Salts n.3	1.50
IPTG	0.10
X-GLUC	0.06
Salmon GAL	0.15
Agar	13.00

Final pH 7.0 ± 0.2

DESCRIPTION

Chromogenic Coliform Agar is a selective and differential medium for the simultaneous detection of *E. coli* and coliform bacteria in waters and foods.

The medium is made selective by the presence of bile salts; the differentiation between coliforms and *E. coli* is given by the presence of Salmon-GAL, a chromogenic substrate for the detection of β -galactosidase and X-GLUC, a chromogen substrate for the detection of β -glucuronidase.

Salmon-GAL is hydrolysed by coliforms releasing a salmon colour pigment; this reaction is strengthened in the medium by the presence of IPTG (isopropil- β -D-thiogalactopiranoside).

X-GLUC is hydrolysed, among enterobacteria, by *E. coli*, and by a few other strains of *Salmonella* and *Shigella* releasing a blue pigment.

The presence of tryptophan in the medium allows testing the indole directly onto the colonies by adding Kovac's Reagent, for the confirmation of *E. coli*.

TECHNIQUE

Filter through a 0.45 μ m membrane an appropriate volume of water (100-10-1-0.1-0.01ml) according to the degree of pollution expected. Lay the filter membrane on the surface of a Chromogenic Coliform Agar plate.

Incubate at 37°C for 18-24 hours: The colonies appearance is the following:

Escherichia coli: dark blue colonies, indole positive

Coliforms (other than *E. coli*): salmon coloured colonies

Proteus: colonies with bright brown halo

Other *Enterobacteriaceae*: colourless colonies

Gram-positive bacteria are usually inhibited.

The Indole test is carried out by adding about 1ml of Kovac's Reagent to the colonies and observing the formation of a red colour within 1-2 minutes.

If the faecal coliforms detection is required, incubate the inoculated plates at 44°C for 18-24 hours.

STORAGE

Store at 2-8° - When stored as directed the plates remain stable until the expiry date shown on the label. Do not use beyond stated expiry date.

PACKAGING

497100

Chromogenic Coliform Agar

30 ready to use plates, diameter 55mm