iChrome E. coli / Coliforms (ic27015)

Chromogenic medium is used for the simultaneous detection of *Escherichia coli* and total *coliforms* in water, food and clinical samples.

Industry: Food / Water

Principles & Uses

iChrome™ E. coli / coliforms is selective and differential culture media designed for detecting *E. coli* and *coliforms* in water and food samples. Monitoring *E. coli* and *coliforms* is crucial for assessing environmental and food hygiene.

This media consists of vital components like peptone, sorbitol, and pyruvate, which promote rapid colony growth, including potential infectious *coliforms*, even aiding the recovery of thermally injured ones. They also contain Tergitol-7 to inhibit unwanted bacteria, sodium chloride for osmotic balance, and phosphate salts for buffering. Bacteriological agar serves as the solidifying agent.

A key differentiation method is the detection of ß-glucuronidase and ß-galactosidase, yielding distinct colony colors. The Indole test using tryptophan confirms *E. coli*.

iChrome™ E. coli / coliforms enable the rapid and accurate identification of *E. coli* and *coliforms* in various samples, ensuring water and food safety.

Composition (gr/L)

Pancreatic digest of Casein 3, Sodium Chloride 5, Disodium Phosphate 2.7, Sodium dihydrogen phosphate 2.2, Sodium pyruvate 1, Sorbitol 1, Tryptophan 0.5, Tergitol7 0.15, IPTG 0.1, Chromogenic mixture 0.3, Agar 12.5.

Final pH at 25°C 6.8 ± 0.2

Preparation from dehydrated Powder

Suspend 14.2 g of the medium in 500 ml of purified water. Autoclave at 121°C for 15 minutes. Allow to cool to 50 °C, add the content of one vial of iChrome *E. coli* / *Coliform* supplement. Mix well and pour into sterile petri dishes.

Quality Control

Dehydrated Appearance: Light beige, free-flowing, homogeneous.

Prepared Appearance: Light to medium amber, slightly opalescent.

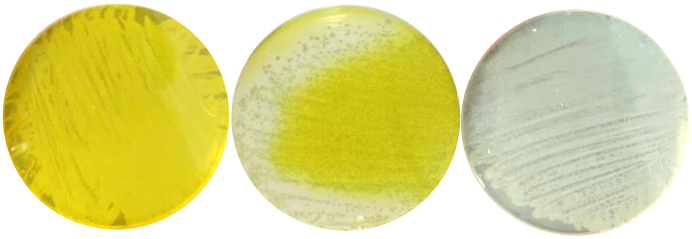
Reaction of 2.8% Solution at 25°C: pH 7.0 ± 0.2

Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organism (ATCC*)	Recovery	Culture Medium	Colony Color
Escherichia coli (25922)	Good	Yellow	Blue-green
Enterobacter aerogenes (13048)	Good	Yellow	colorless
Citrobacter freundii (8090)	Good	Yellow	colorless
Staphylococcus aureus (25923)	Marked to complete inhibition	-	-

*ATCC is a registered trade mark of the American Type Culture Collection.



C. freundii causes the medium to turn yellow (left). *E. coli* is characterized by blue-green colonies and yellow medium (middle). non-*coliform* bacteria do not induce any change in colony color or the medium (right)

Storage

Store supplement, dehydrated medium and prepared medium at 2-8 °C.