

CHROMOGENIC MEDIA

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Laboratorios CONDA was founded in 1960 as the first Spanish producer of Dehydrated Culture Media for Microbiology and Molecular Biology. The company is now internationally recognized as one of the leaders in the field and supplies key ingredients for use in research and testing, such as Agars, Peptones and Agaroses, among other products.

Following the mission of being a major contributor to the field of Life Sciences through the design, production and provision of products and services of the highest quality and value, CONDA has developed, after six years of thorough research and investigation, a full range of chromogenic media for the detection and further study of microbial growth through color reaction and differentiation.

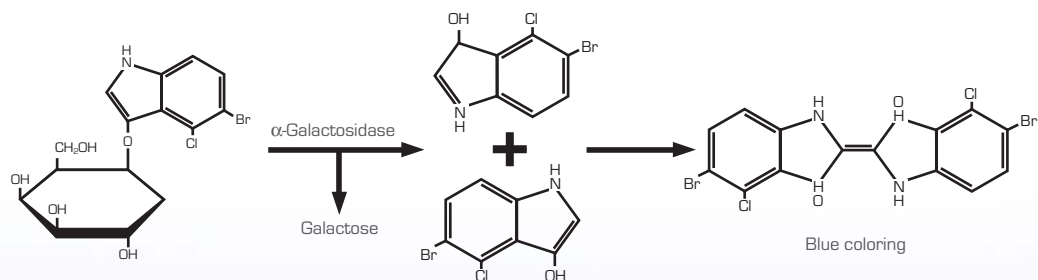
Chromogenic substrates have proved to be a powerful tool in the identification of microorganisms due to the detection of specific enzymes produced by the target microorganism. These enzymes cleave the chromogenic substrate that points up the microorganism by color differentiation of the grown bacterial colonies.

These chromogenic media permit:

- Enhanced accuracy and easy microbial detection and identification by means of color.
- Cost efficient working process.
- Time lag reduction, faster bacterial identification and results.

Chromogenic media are available as dehydrated media or in ready-to-use formats.

Chromogenic reaction example



Industry

TBX Chromogenic Agar (ISO 16649-2:2001)
E.coli-Coliforms Chromogenic Medium
Salmonella Chromogenic Medium
Listeria Chromogenic Agar Base (ISO 11290:2004)
m-EI Chromogenic Agar
Enterobacter sakazakii Isolation Agar (ISO 16649:2005)

Clinical

MRSA Agar
Candida Chromogenic Agar
UTIC Chromogenic Agar

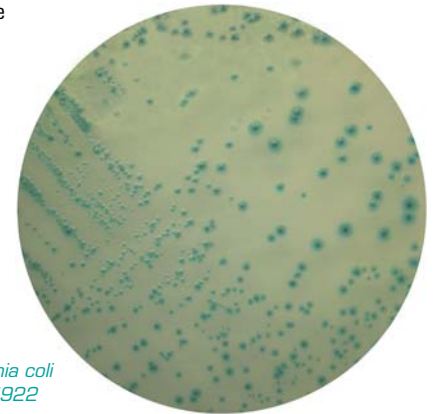
INDUSTRY CHROMOGENIC MEDIA

TBX Chromogenic Agar (ISO 16649-2:2001)

Cat. No. 1151

Selective medium for the presumptive detection and enumeration of *Escherichia coli* in foods and water.

- Tryptone Bile Salts Agar with the addition of x-β-D-glucuronide detects the presence of the enzyme glucuronidase, which is highly specific for *Escherichia coli*.
- Bile Salts inhibit other Gram-positive organisms and suppress coliform bacteria.
- Incubation at 44°C inhibits the growth of most bacteria.
- Results in 24 h.
- Can be used with the membrane Filter technique.
- Different pack sizes: 500 g / 100 g / bulk packs / 90 mm plates / 55 mm water quality control plates.
- Easy Interpretation by color of colonies:
 - *E. coli* Green-blue
 - *Salmonella*, *Streptococcus*, *Klebsiella* Inhibited
- TBX medium complies with ISO 16649-2:2001.
- *Escherichia coli* O157:H7 is β-D-glucuronidase negative and presents colorless colonies.



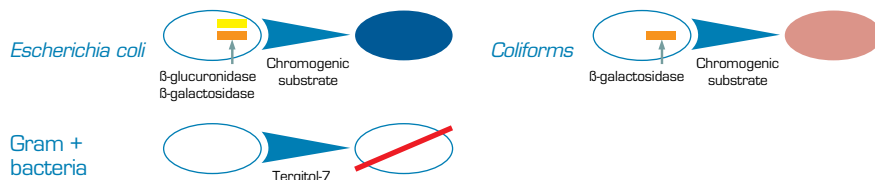
Escherichia coli
ATCC 25922

E.coli-Coliforms Chromogenic Medium

Cat. No. 1340

Selective Medium for the simultaneous presumptive detection of *Escherichia coli* and other Coliforms in water and food samples.

- Quick colonies growth due to the interaction of ingredients in the medium.
- Tergitol-7 inhibits Gram-positive bacteria.
- Salmon-Gal and x-β-glucuronide as substrates give a dark blue color to *E. coli* colonies, easily distinguishable from other coliforms colonies that have a salmon to red color due to the utilization of Salmon-Gal.
- Addition of tryptophan allows performance of the indole test for further *E. coli* confirmation.
- Results in 24 h.
- Different pack sizes: 525 g / 105 g / bulk packs / 90 mm plates / 55 mm water quality control plates.
- Easy Interpretation by color of colonies:
 - *E. coli* Blue-dark violet
 - *Salmonella enteritidis* Colorless
 - *Citrobacter freundii* Salmon
 - *Streptococcus faecalis* Null
- *Escherichia coli* O157:H7 is β-D-glucuronidase negative and presents pink colonies.



Escherichia coli
ATCC 25922

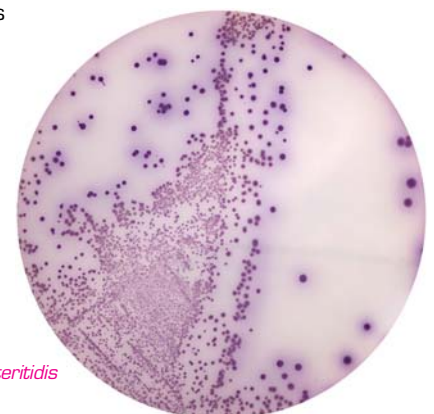
Citrobacter freundii
ATCC 8090

Salmonella Chromogenic Medium

Cat. No. 1122

Medium for the detection and presumptive identification of *Salmonella* species in food, water and clinical samples.

- X-Gal is a substrate incorporated to visualize the enzyme β-D-galactosidase that gives the colonies their blue color.
- Magenta-caprylate gives a magenta color to the Lactose negative *Salmonella* species.
- Results in 24 h.
- Different pack sizes: 575 g / 115 g / bulk packs / 90 mm plates.
- Easy Interpretation by color of colonies:
 - *E. coli* Blue-green
 - *Salmonella sp* Magenta
 - *Proteus vulgaris* Colorless



Salmonella enteritidis
ATCC 13076

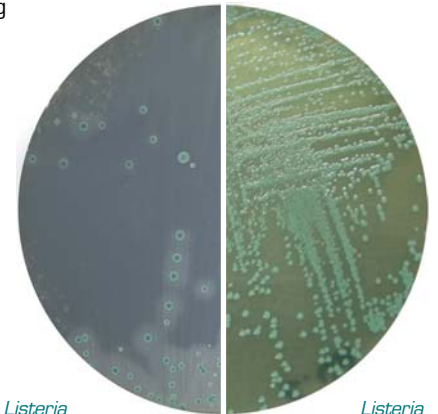
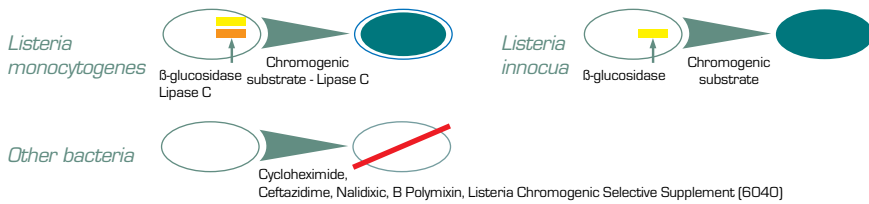
INDUSTRY CHROMOGENIC MEDIA

Listeria Chromogenic Agar Base (ISO 11290:2004)

Cat. No. 1345

Medium for the presumptive detection and enumeration of *Listeria monocytogenes* in food.

- X-β-glucoside detects the presence of the enzyme β-glucosidase, common to all *Listeria* species giving the colonies their blue color.
- Lithium chloride provides the selectivity of the medium.
- Two supplements are required:
 - Listeria Lipase C Supplement (Cat. No. 6031). Specific enzyme for *Listeria monocytogenes*. Responsible for the opaque halo which surrounds *L. monocytogenes*.
 - Listeria Chromogenic Selective Supplement (Cat. No. 6040). Inhibits other organisms.
- Results in 48 h.
- Listeria Chromogenic Agar complies with ISO 11290:2004.
- Different pack sizes: 500 g / 100 g / bulk packs / 90 mm plates.
- Easy Interpretation by color of colonies:
 - *L. monocytogenes* Blue with positive halo
 - *L. innocua* Blue with negative halo
 - *Streptococcus faecalis* Inhibited
 - *Escherichia coli* Inhibited



Listeria monocytogenes
ATCC 19111

Listeria innocua
ATCC 33090

m-EI Chromogenic Agar

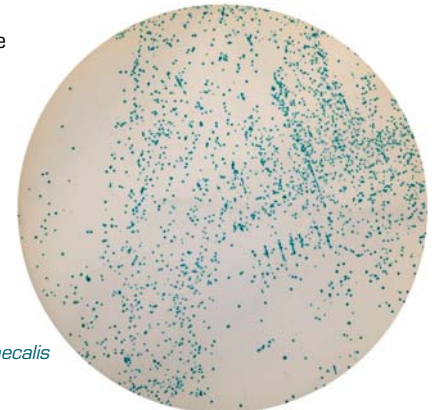
Cat. No. 1412

Medium to detect and enumerate presumptive *Enterococcus* in water through the single-step membrane filtration technique.

- X-glucoside detects the presence of the enzyme glucosidase, synthesized by glucosidase-positive enterococci. Glucosidase is used by these bacteria giving the colonies their blue color.
- Cycloheximide and sodium azide inhibit the rest of the organisms.
- Nalidixic acid is added to increase the selectivity.
- Results in 24 h.
- Different pack sizes: 500 g / 100 g / bulk packs / 90 mm plates / 55 mm water quality control plates.
- Easy Interpretation by color of colonies:
 - *Enterococcus faecium* Blue
 - *Enterococcus faecalis* Blue



Enterococcus faecalis
ATCC 19433

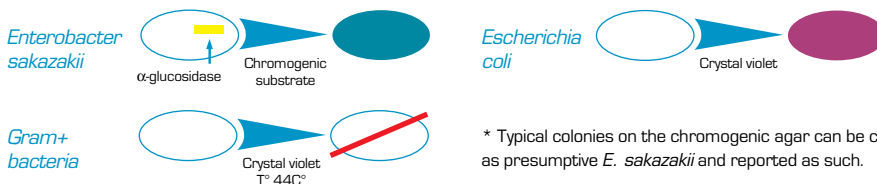


Enterobacter sakazakii Isolation Agar (ISO 22964:2006)

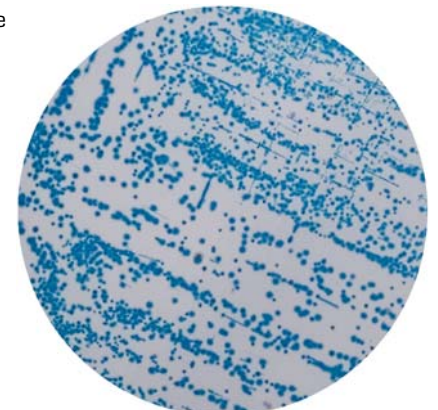
Cat. No. 1446

Medium to isolate *Enterobacter sakazakii* in milk powder and powdered infant formulae.

- Glucose is added to enhance the specificity of *Enterobacter sakazakii* detection due to α-D-Glucosidase that is an enzyme specific for *E. sakazakii*.
- Crystal violet inhibits Gram-positive bacteria and the most fastidious Gram-negative organisms.
- Results in 24 h.
- Enterobacter sakazakii Agar complies with ISO 22964:2006.
- Different pack sizes: 500 g / 100 g / bulk packs / 90 mm plates.
- Easy Interpretation by color of colonies:
 - *E. coli* Transparent/red-violet
 - *Staphylococcus sp.* Inhibited
 - *Enterobacter sakazakii* Green/blue-greenish



* Typical colonies on the chromogenic agar can be considered as presumptive *E. sakazakii* and reported as such.



Enterobacter sakazakii ATCC 29544

CLINICAL CHROMOGENIC MEDIA

MRSA Agar

Cat. No. 1423

Presumptive detection of Methicilin resistant *Staphylococcus aureus* in clinical samples.

- α -glucosidase produced by *Staphylococcus aureus* cleaves the chromogenic substrate and gives a blue color to the *Staphylococcus aureus* colony.
- Cefoxitin Supplement (Cat. No. 6069) inhibits the growth of *Staphylococcus aureus* sensitive to methicilin.
- Results in 24 h.
- Different pack sizes: 500 g / 100 g / bulk packs / 90 mm plates.
- Easy Interpretation by color of colonies:
 - *Staphylococcus aureus* ATCC 25923 Inhibited
 - *Staphylococcus aureus* ATCC 43300 Blue
 - *E. coli* Inhibited

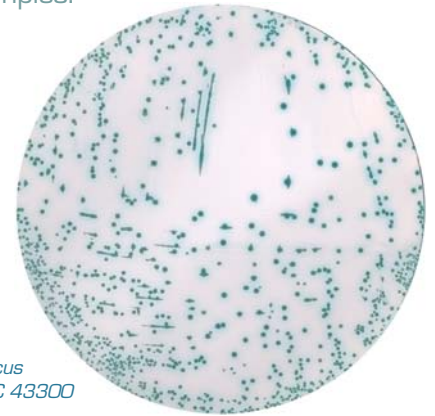
Methicilin resistant *Staphylococcus aureus*



Staphylococcus aureus and other bacteria



Staphylococcus aureus ATCC 43300

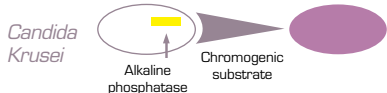
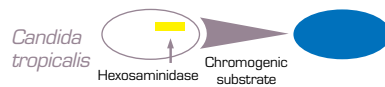
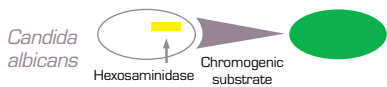


Candida Chromogenic Agar

Cat. No. 1382

Differential and selective medium for the isolation and quick identification of presumptive *Candida sp* of clinical importance.

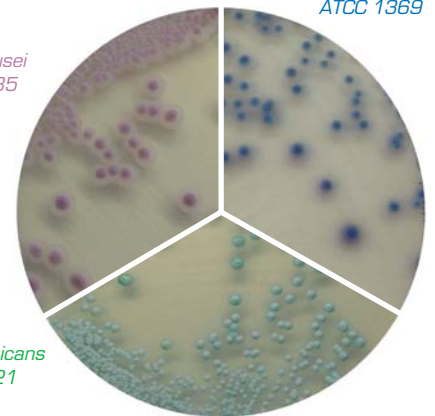
- Chromogenic substrates can differentiate three *Candida* species: *Candida albicans*, *Candida tropicalis* and *Candida krusei*.
- Different colored colonies allow easy plate reading.
- Results in 24 h. Must be observed at 48 and 72 h.
- Different pack sizes: 500 g / 100 g / bulk packs / 90 mm plates.
- Easy Interpretation by color of colonies:
 - *Candida albicans* Green
 - *Candida tropicalis* Blue
 - *Candida krusei* Purple-pink



Candida krusei
ATCC 34135

Candida albicans
ATCC 10321

Candida tropicalis
ATCC 1369



Urinary Tract Infections Chromogenic Agar (UTIC)

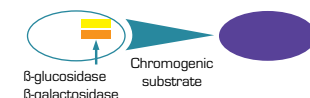
Cat. No. 1424

Presumptive detection and differentiation of organism which cause urinary tract infections in clinical samples.

- 2 different chromogenic substrates are present in this medium. First one is cleaved by β -glucosidase, allowing the specific detection of enterococci which form blue or turquoise colonies. The other chromogen is cleaved by β -galactosidase, that gives *E. coli* a pink color. Cleavage of both enzymes give the colonies a dark blue–purple color.
- Tryptophane provides a presumptive indication of tryptophane deaminase activity giving *Proteus spp*, *Morganella spp* and *Providencia sp*. a light brown color.
- Results in 24 h.
- Different pack sizes: 500 g / 100 g / bulk packs / 90 mm plates.
- Easy Interpretation by color of colonies:
 - *Escherichia coli* Pink
 - *Enterobacter aerogenes* Dark blue/purple
 - *Klebsiella pneumoniae* Dark blue/purple
 - *Proteus mirabilis* Light Brown
 - *Staphylococcus aureus* ... White cream
 - *Enterococcus faecalis* Light blue



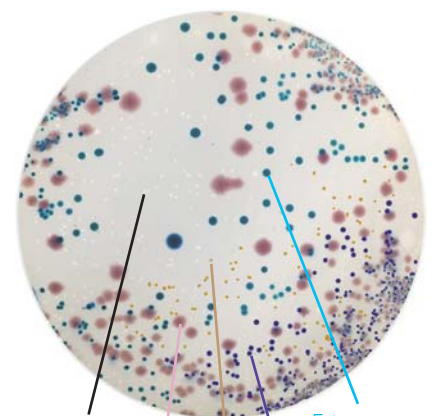
Enterobacter aerogenes and *Klebsiella pneumoniae*



Proteus spp., *Morganella spp.* and *Providencia sp.*



Staphylococcus aureus



Staphylococcus aureus ATCC 25923

Escherichia coli ATCC 25922

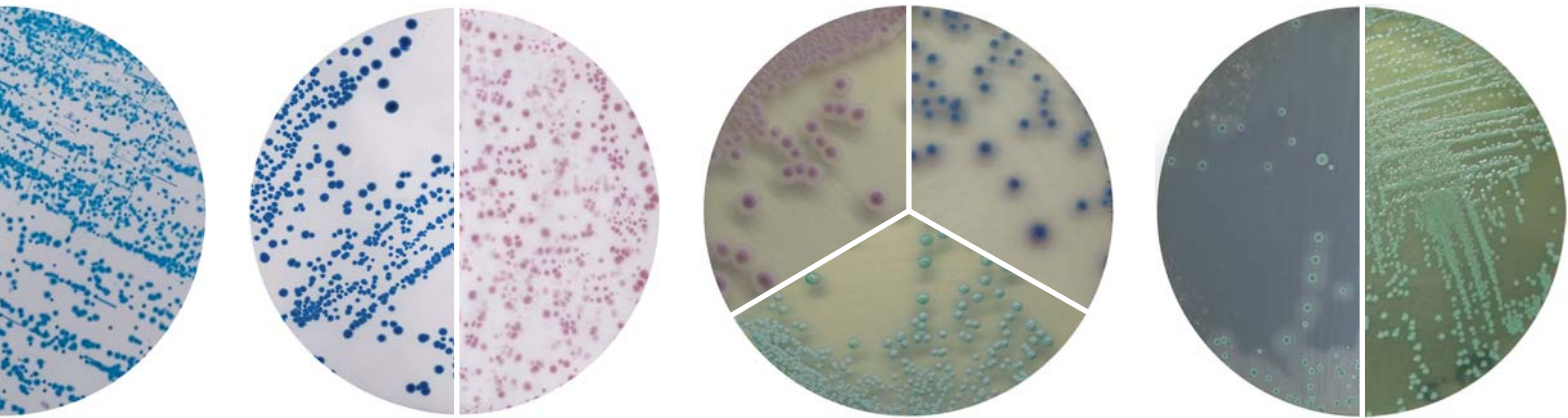
Proteus mirabilis ATCC 13315

Enterococcus faecalis

Enterobacter aerogenes ATCC 13048
Klebsiella pneumoniae ATCC 13883



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