



Chromogenic Culture Media

4th Edition

knowledge. partnership. future.



LABORATORIOS CONDA S.A.

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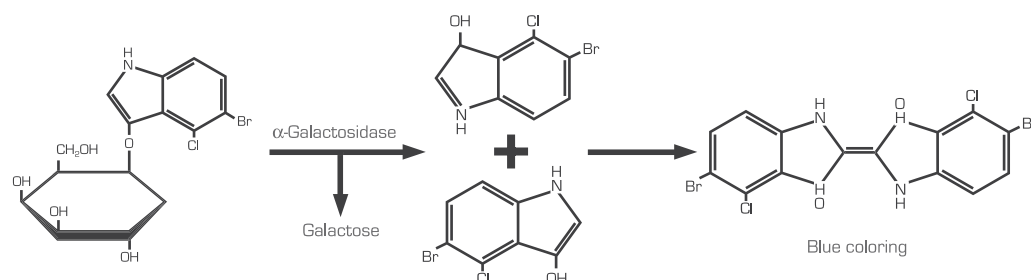
MOLECULAR BIOLOGY PRODUCTS

Chromogenic Culture Media

CONDA has developed a full range of chromogenic media for the detection and further study of microbial growth through color reaction and differentiation.

Chromogenic substrates have been proved to be a powerful tool in the identification of microorganisms due to their detection of specific enzymes produced by the target microorganism. The enzymes act as catalysts of the chromogenic substrate, making the microorganism grow a specific color, different for each bacteria, thus facilitating colony differentiation.

CHROMOGENIC REACTION
EXAMPLE



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

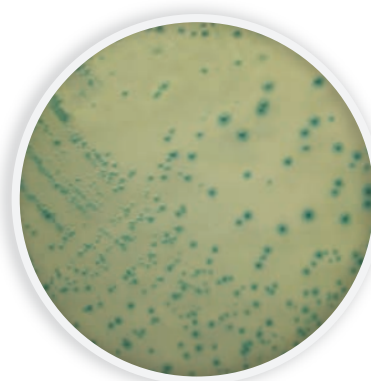
Chromogenic media are available as **dehydrated media** or in **ready-to-use** formats.

TBX CHROMOGENIC AGAR (ISO 16649-2)

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 hours.
- It can be used with the membrane filter technique.
- Easy interpretation through colony color.

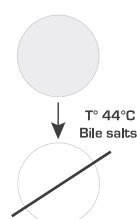
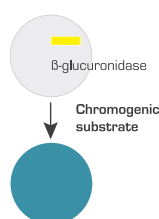


Escherichia coli ATCC 25922

Different pack sizes: 500 g/100 g/bulk packs/
90 mm plates/55 mm water quality control plates

Escherichia coli

Other bacteria



- ✓ *Escherichia coli*: **Green-blue**
- ✓ *Salmonella*, *Enterococcus*, *Klebsiella*: **Inhibited**
- ✓ TBX Chromogenic Agar Complies with ISO 16649-2.
- ✓ *Escherichia coli* O157:H7 is B-D-glucuronidase-negative and growth as **Colorless** colonies.

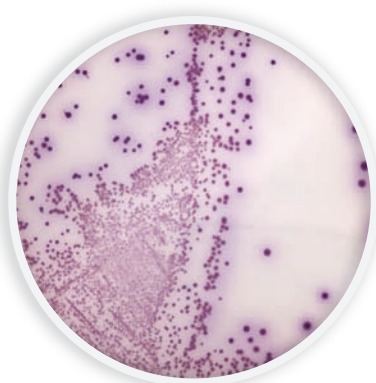


Escherichia coli
ATCC 25922

Citrobacter freundii
ATCC 8090

Different pack sizes:
525 g/105 g/bulk packs/90 mm plates/
55 mm water quality control plates.

- ✓ *Escherichia coli*: **Blue-dark violet**
- ✓ *Salmonella enteritidis*: **Colorless**
- ✓ *Citrobacter freundii*: **Salmon**
- ✓ *Enterococcus faecalis*: **Null**
- ✓ *Escherichia coli* O157:H7 is β -D-glucuronidase-negative and presents **Pink** colonies.



Salmonella enteritidis ATCC 13076

Different pack sizes:
575 g/115 g/bulk packs/90 mm plates

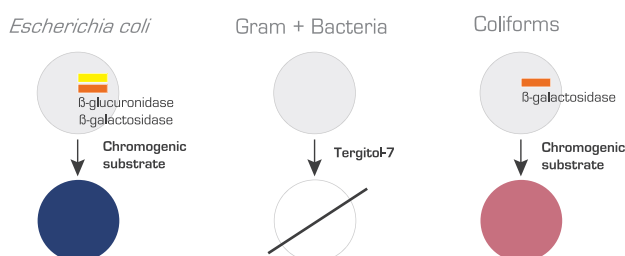
- ✓ *Escherichia coli*: **Blue-green**
- ✓ *Proteus vulgaris*: **Colorless**
- ✓ *Salmonella spp.*: **Magenta**

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 colony 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 *Escherichia coli* colonies, easily distinguishable from other coliform colonies that have a salmon to red color due to the use of Salmon-Gal.
- Addition of tryptophan allows performance of the indole test for further *Escherichia coli* confirmation.
- Results in 24 hours.
- Easy interpretation through colony color.

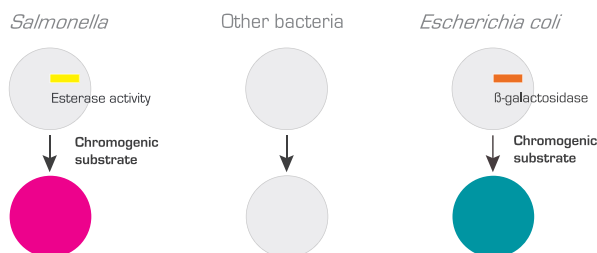


SALMONELLA CHROMOGENIC MEDIUM

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 *Salmonella* species.
- Results in 24 hours.
- Easy interpretation through colony color.



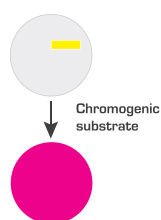
STANDARD METHODS CHROMOGENIC AGAR (PCA)

Cat. No. 1585

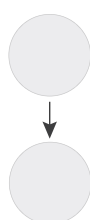
Medium for the total microbial plate count.

- The chromogenic substrate allow the enumeration of bacteria through colony color.
- All mesophiles bacteria growth as magenta colonies.
- Results in 24 hours.
- Easy interpretation through colony color.

Aerobes mesophiles



Candida albicans



Staphylococcus aureus ATCC 25923

Different pack sizes: 575 g / 115 g /
bulk packs / 90 mm plates.

- ✓ *Escherichia coli*: **Magenta**
- ✓ *Staphylococcus aureus*: **Magenta**
- ✓ *Salmonella* spp.: **Magenta**
- ✓ *Candida albicans*: **White**

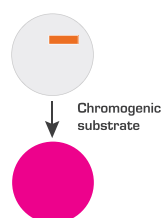
PSEUDOMONAS CHROMOGENIC AGAR

Cat. No. 1493

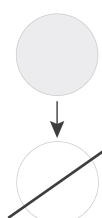
For the rapid isolation of *Pseudomonas* species.

- The chromogenic substrate gives a magenta color to *Pseudomonas*.
- All bacteria excepting bacteria species are inhibited.
- Results in 24 - 48 hours.
- Easy interpretation through colony color.

Pseudomonas



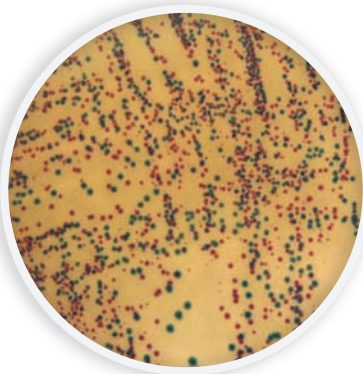
Other microorganism



Pseudomonas aeruginosa ATCC 27853

Different pack sizes: 500 g / 100 g /
bulk packs / 90 mm plates.

- ✓ *Pseudomonas aeruginosa*: **Magenta**



Salmonella typhimurium ATCC 14028
Escherichia coli ATCC 25922

Different pack sizes: 500 g/100 g/
bulk packs/90 mm plates.

- ✓ *Escherichia coli*: **Blue-dark-greenish-blue**
- ✓ *Salmonella enteritidis*: **Pink**
- ✓ *Citrobacter freundii*: **Pink**
- ✓ *Escherichia coli* O157:H7 is β -D-glucuronidase-negative and presents **Pink** colonies.



Different pack sizes: 500 g/100 g/bulk packs.

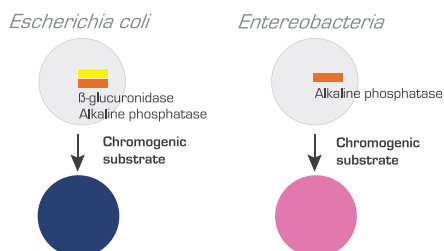
- ✓ *Coliforms*: **Blue-greenish**
- ✓ *Escherichia coli*: **Blue-greenish; fluorescence at 366 nm +; indole +**
- ✓ *Salmonella spp.*: **Colorless**

E.COLI ENTEROBACTERIA CHROMOGENIC MEDIUM

Cat. No. 2018

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

- Quick colony growth due to the interaction of ingredients in the medium.
- The enzymes Alkaline phosphatase and β -glucuronidase, give a dark blue color to *Escherichia coli* colonies, easily distinguishable from other enterobacteria colonies that have a pink color due to the enzyme alkaline phosphatase.
- Results in 24 hours.
- Easy interpretation through colony color:

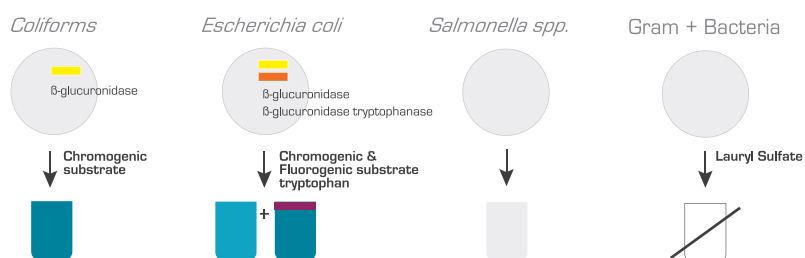


LAURYL SULFATE CHROMOGENIC BROTH

Cat. No. 1465

Enrichment medium for the simultaneous detection of total coliforms and *Escherichia coli* in water, foods and dairy products.

- Chromogenic and fluorogenic substrates allow the detection of total coliforms and *Escherichia coli* count at the same time.
- The chromogenic substrate detects the presence of coliforms changing the color from colorless to blue-greenish.
- The fluorogenic substrate indicates the presence of *Escherichia coli*.
- Lauryl Sulfate inhibits Gram-positive bacteria.
- Tryptophan promotes indole reaction.
- Results in 24 hours.
- Easy interpretation through medium color.

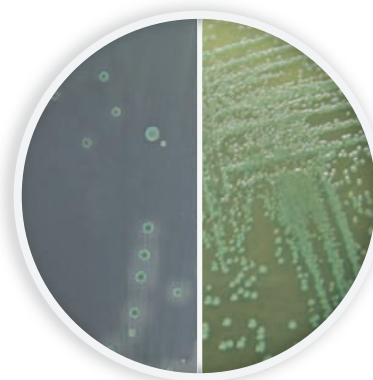
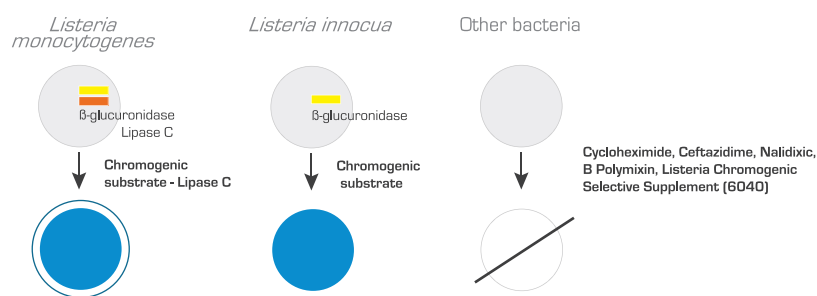


LISTERIA CHROMOGENIC AGAR BASE [ISO 11290]

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 *Listeria monocytogenes*.
 - Listeria Chromogenic Selective Supplement (Cat. No. 6040): Inhibits other organisms.
- Results in 48 hours
- Easy interpretation through colony color:



Listeria monocytogenes
ATCC 19111

Listeria innocua
ATCC 33090

Different pack sizes: 500 g/100 g/
bulk packs/90 mm plates

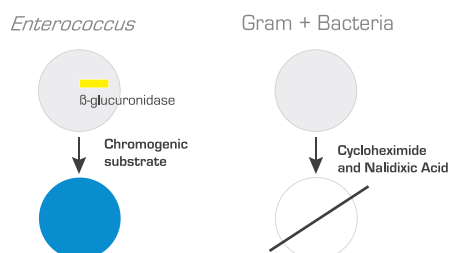
- ✓ *Listeria monocytogenes*: **Blue** with a positive halo
- ✓ *Enterococcus faecalis*: **Inhibited**
- ✓ *Listeria innocua*: **Blue** without halo
- ✓ *Escherichia coli*: **Inhibited**

m-EI CHROMOGENIC AGAR

Cat. No. 1412

Medium for the detection and enumeration of presumptive *Enterococcus* in water through the single-step membrane filtration technique.

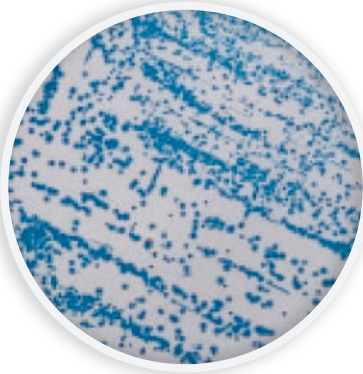
- X-glucoside detects the presence of the enzyme glucosidase, synthesized by glucosidase-positive enterococci. Glucosidase is used by these bacteria giving the colonies their blue color.
- Cycloheximide and Sodium Azide inhibit the rest of the organisms.
- Nalidixic Acid is added to increase selectivity.
- Results in 24 hours.
- Easy interpretation through colony color.



Enterococcus faecalis ATCC 19433

Different pack sizes: 500 g/100 g/bulk packs/
90 mm plates/55 mm water quality control plates.

- ✓ *Enterococcus faecium*: **Blue**
- ✓ *Enterococcus faecalis*: **Blue**



Enterobacter sakazakii ATCC 29544

Different pack sizes: 500 g/100 g/
bulk packs/90 mm plates

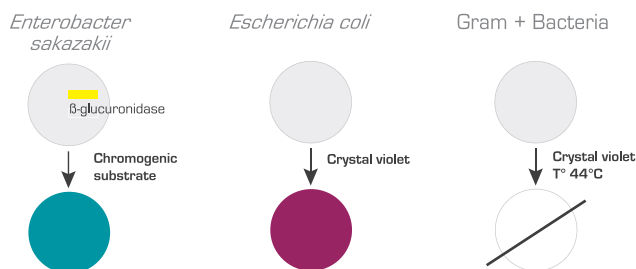
- ✓ *Escherichia coli*: Transparent/red-violet
- ✓ *Enterobacter sakazakii*: Green/
greenish-blue
- ✓ *Staphylococcus spp.*: Inhibited

ENTEROBACTER SAKAZAKII ISOLATION AGAR [ISO 22964]

Cat. No. 1446

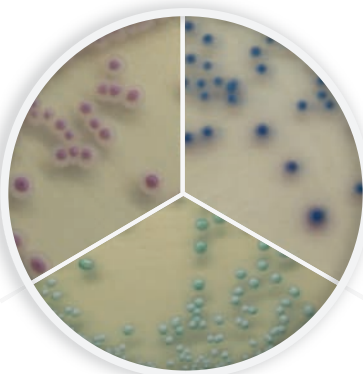
Medium to isolate *Enterobacter sakazakii* in milk powder and powdered infant formulae.

- Glucose is added to enhance the specificity of *Enterobacter sakazakii* detection due to α -D-Glucosidase, an enzyme specific for *Enterobacter sakazakii*.
- Crystal violet inhibits Gram-positive bacteria and the most fastidious Gram-negative organisms.
- Results in 24 hours.
- Easy interpretation through colony color.



* Typical colonies on the Chromogenic Agar can be considered as presumptive *Enterobacter sakazakii* and reported as such.

Candida krusei ATCC 34135
Candida tropicalis ATCC 1369



Candida albicans ATCC 10321

Different pack sizes: 505 g/100 g/
bulk packs/90 mm plates.

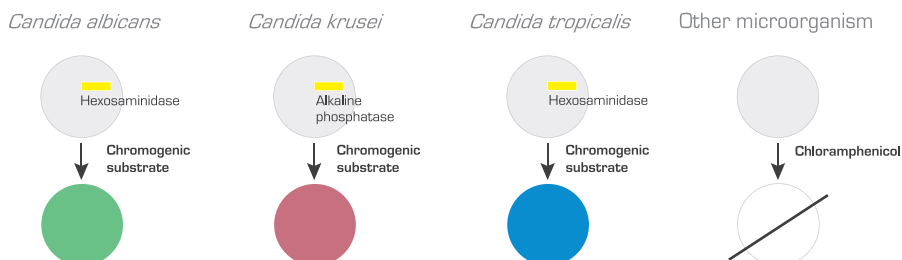
- ✓ *Candida albicans*: Green
- ✓ *Candida krusei*: Purple-pink
- ✓ *Candida tropicalis*: Blue

CANDIDA CHROMOGENIC AGAR

Cat. No. 1382

Differential and selective medium for the isolation and quick identification of presumptive *Candida spp.* 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 hours. Must also be observed at 48 and 72 hours
- Easy interpretation through colony color.



MRSA AGAR

Cat. No. 1423

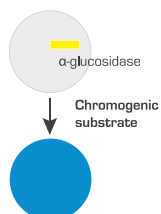
For the presumptive detection of Methicillin resistant *Staphylococcus aureus* in clinical samples.

- α -glucosidase produced by *Staphylococcus aureus* cleaves the chromogenic substrate and gives a blue color to *Staphylococcus aureus* colonies.
- Cefoxitin Supplement (Cat. No. 6069) inhibits the growth of *Staphylococcus aureus* sensitive to Methicillin.
- Results in 24 hours.
- Easy interpretation through colony color.

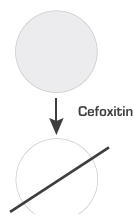


Staphylococcus aureus
ATCC 43300

Methicillin resistant
Staphylococcus aureus



Staphylococcus aureus
and other bacteria



Different pack sizes: 520 g/100 g/
bulk packs/90 mm plates.

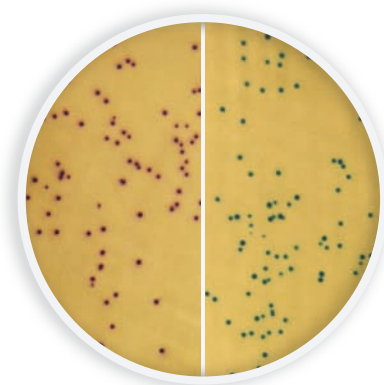
- ✓ *Staphylococcus aureus* ATCC 25923: Inhibited
- ✓ *E.coli*: Inhibited
- ✓ *Staphylococcus aureus* ATCC 43300: **Blue**

MRSA AGAR, MODIFIED

Cat. No. 1498

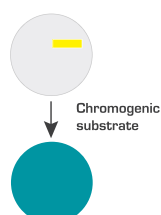
For the presumptive detection of Methicillin resistant *Staphylococcus aureus* and *Staphylococcus epidermidis* in clinical samples

- Easy differentiation between methicillin resistant *Staphylococcus aureus* and *Staphylococcus epidermidis*.
- Cefoxitin Supplement (Cat. No. 6069) inhibits the growth of *Staphylococcus aureus* and *Staphylococcus epidermidis* sensitive to Methicillin.
- Results in 24 hours.
- Easy interpretation through colony color.

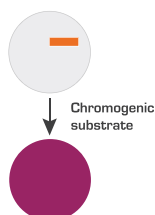


Staphylococcus aureus ATCC 43300 *Staphylococcus epidermidis* ATCC 8090

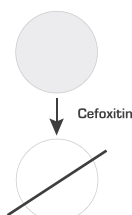
Methicillin Resistant
Staphylococcus epidermidis



Methicillin Resistant
Staphylococcus aureus

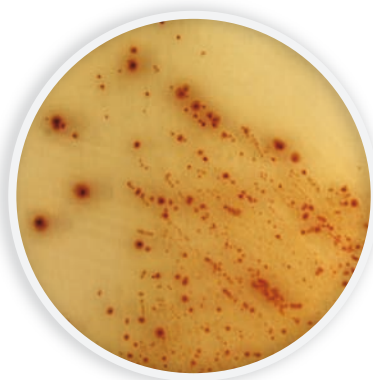


Methicillin sensitive
bacteria



Different pack sizes: 500 g/100 g/
bulk packs/90 mm plates.

- ✓ *Staphylococcus aureus* ATCC 25923: Inhibited
- ✓ *Staphylococcus epidermidis* ATCC 8090: **Blue-green**
- ✓ *Staphylococcus aureus* ATCC 43300: **Magenta**



ATCC 25922 / ATCC 25923 / ATCC 14028

Different pack sizes: 500 g / 100 g /
bulk packs / 90 mm plates.

- ✓ *E. coli* 0157:H7: **Pale Pink**
- ✓ *E. coli* ATCC 25922: **Inhibited**
- ✓ *Staphylococcus aureus* ATCC 25923: **Inhibited**
- ✓ *Salmonella typhimurium* ATCC 14028: **Inhibited**

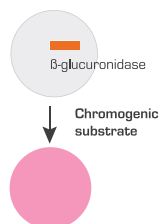
E. COLI 0157:H7 CHROMOGENIC AGAR BASE

Cat. No. 1588

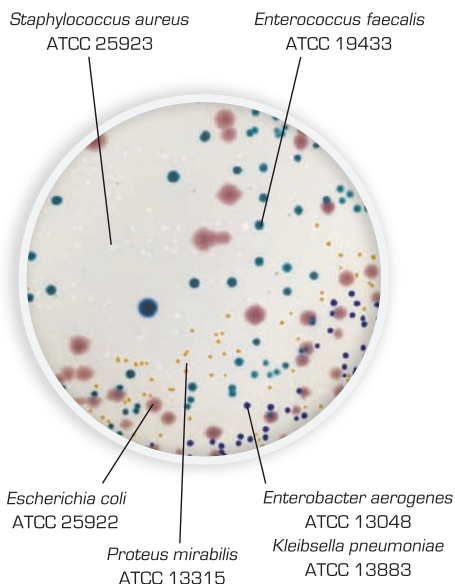
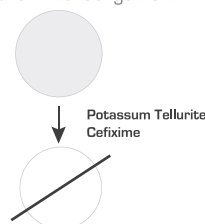
Selective and differential medium for the detection of *E. coli* 0157:H7

- A enzyme produced by *E. coli* 0157:H7 cleaves the chromogenic substrate and gives a pale pink to the colonies.
- Cefixime Tellurite Supplement (Cat. No. 6064) inhibits the growth of the rest of bacteria.
- Results in 24 hours.
- Easy interpretation through colony color:

E. coli 0157:H7



Other microorganism



Different pack sizes: 525 g / 105 g /
bulk packs / 90 mm plates.

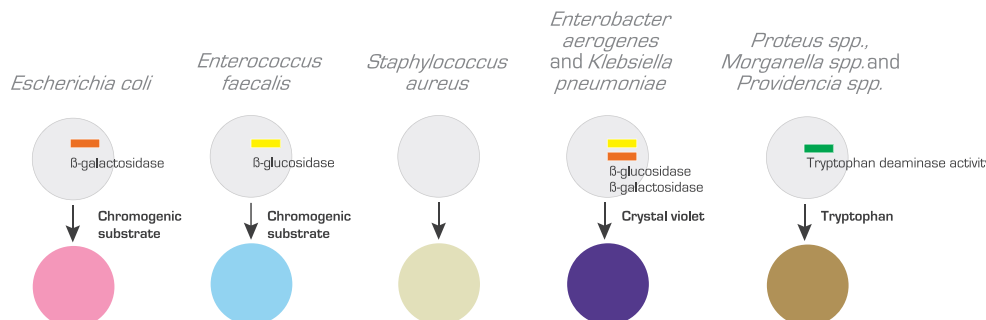
- ✓ *Escherichia coli*: **Pink**
- ✓ *Proteus mirabilis*: **Light brown**
- ✓ *Enterobacter aerogenes*: **Dark blue/purple**
- ✓ *Staphylococcus aureus*: **White cream**
- ✓ *Klebsiella pneumoniae*: **Dark blue/purple**
- ✓ *Enterococcus faecalis*: **Light blue**

UTIC CHROMOGENIC AGAR [URINARY TRACT INFECTIONS]

Cat. No. 1424

For the presumptive detection and differentiation of organisms which cause urinary tract infections in clinical samples.

- Two different chromogenic substrates are present in this medium. 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, giving *E. coli* a pink color. Cleavage of both enzymes give the colonies a dark blue–purple color.
- Tryptophan provides a presumptive indication of tryptophan deaminase activity giving *Proteus spp.*, *Morganella spp.* and *Providencia spp.* a light brown color.
- Results in 24 hours.
- Easy interpretation through colony color.



Product Presentations

* all Media available in Bulk Packs

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GENERAL USE

TBX CHROMOGENIC AGAR (ISO 16649-2:2001)

Cat. No. 1151
Pack sizes: 500 g / 100 g

E.COLI-COLIFORMS CHROMOGENIC MEDIUM

Cat. No. 1340
Pack sizes: 525 g / 105 g

SALMONELLA CHROMOGENIC MEDIUM

Cat. No. 1122
Pack sizes: 575 g / 115 g

STANDARD METHODS CHROMOGENIC AGAR (PCA)

Cat. No. 1585
Pack sizes: 500 g / 100 g

PSEUDOMONAS CHROMOGENIC AGAR

Cat. No. 1493
Pack sizes: 500 g / 100 g

INDUSTRIAL USE

E.COLI-ENTEROBACTERIA CHROMOGENIC MEDIUM

Cat. No 2018
Pack sizes: 500 g / 100 g

LAURYL SULFATE CHROMOGENIC BROTH

Cat. No. 1465
Pack sizes: 500 g / 100 g

LISTERIA CHROMOGENIC AGAR BASE (ISO 11290:2004)

Cat. No. 1345
Pack sizes: 500 g / 106 g

m-EI CHROMOGENIC AGAR

Cat. No. 1412
Pack sizes: 500 g / 100 g

ENTEROBACTER SAKAZAKII ISOLATION AGAR (ISO 22964:2006)

Cat. No. 1446
Pack sizes: 520 g / 104 g

CLINICAL USE

CANDIDA CHROMOGENIC AGAR

Cat. No. 1382
Pack sizes: 505 g / 100 g

MRSA AGAR

Cat. No. 1423
Pack sizes: 520 g / 100 g

MRSA Agar, Modified

Cat. No. 1498
Pack sizes: 520 g / 100 g

E.COLI 0157:H7 CHROMOGENIC AGAR BASE

Cat. No. 1588
Pack sizes:

URINARY TRACT INFECTIONS CHROMOGENIC AGAR (UTIC)

Cat. No. 1424
Pack sizes: 525 g / 105 g



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Micro & Molecular Biology

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