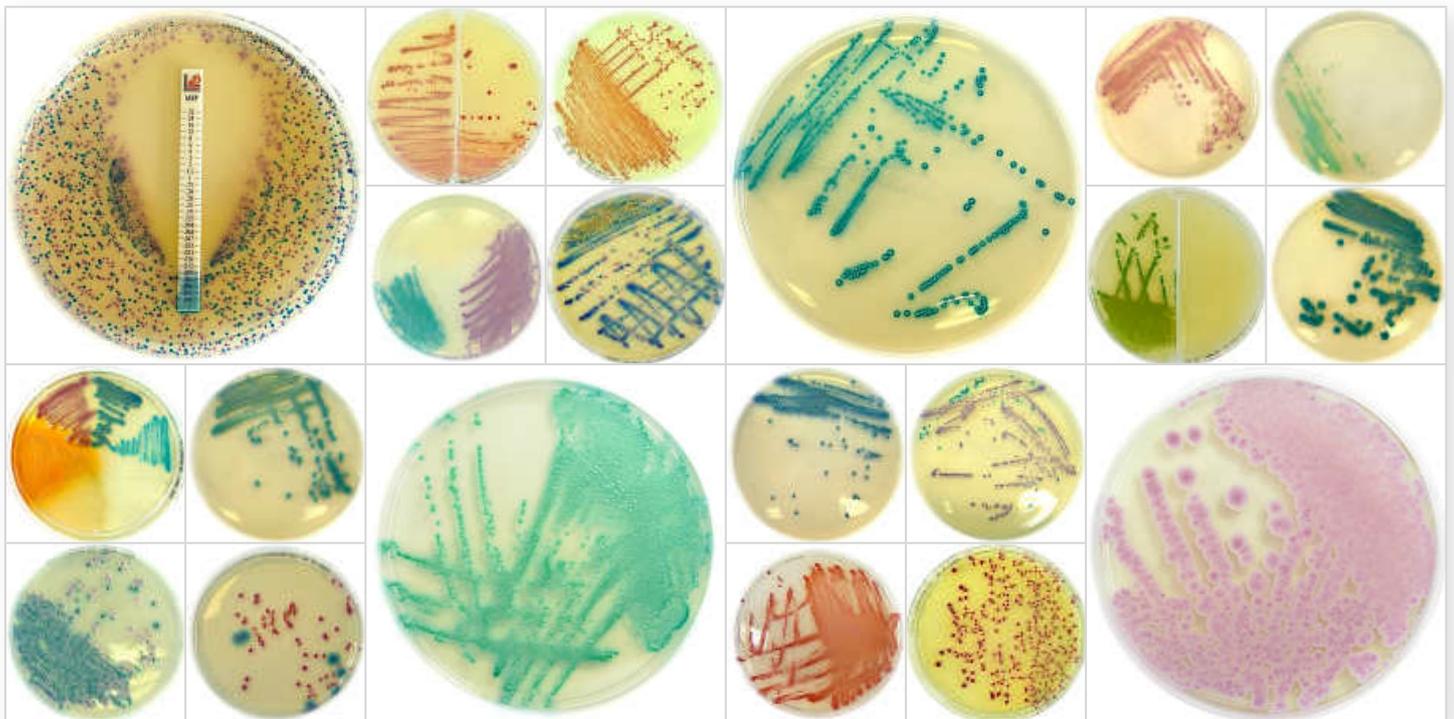


Liofilchem® Chromatic

Chromogenic culture media for Microbial Identification
and for the screening of antimicrobial resistance mechanisms



www.liofilchem.net



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Since 1983 Liofilchem® s.r.l. has committed its Research and Development department to the production of reliable and high quality bacteriology products.

Our dedication to Customer satisfaction and exceptional manufacturing versatility have granted Liofilchem® continuous growth, as a result of the increasing quality of our products and the worldwide distribution of the Liofilchem® brand name.

Liofilchem® is present in over 80 countries with agents and distributors placing our products in clinical and industrial laboratories around the world.

Our catalogue is comprised of approximately 4000 items basically classified into two main categories, clinical and industrial microbiology.

Liofilchem® manufacturing offers a wide range of items so that our customers can find in us a complete one stop supplier that is always ready to respond to the needs of the ever evolving laboratory market.



Liofilchem® produces microbial identification and susceptibility testing systems, MIC Test Strip, antibiotic discs in cartridges, dehydrated culture media, selective supplements, ready to use culture media in petri dish, tube, bottle and dip-slide, systems for the chemical and microbial screening in food, bio-indicators for sterilization process control systems. Liofilchem® also performs OEM and Private Label productions.

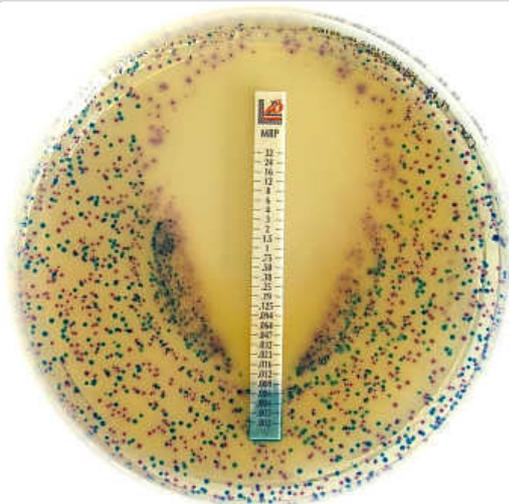
The complete manufacturing processes and quality control are carried out in house by Liofilchem® employees at our two facilities in Roseto degli Abruzzi of total over 7000 m² area. The newest of them was opened last August 2010 and represents the state-of-the-art for the diagnostic manufacturing.

The new Liofilchem®'s facility was built according to the latest international recommendations for manufacturers of In-Vitro diagnostics. Moreover, since many of our customers are Pharmaceutical Industries from all over the world, our new production processes closely resemble the highest standard of pharmaceutical companies. As a supplier of pharmaceutical industries, Liofilchem® is constantly subjected to their strictest audits and keen to satisfy their requests.

Liofilchem® is certified ISO 9001 for the Quality Management and ISO 13425 as an IVD manufacturer.



Liofilchem® Chromatic MH



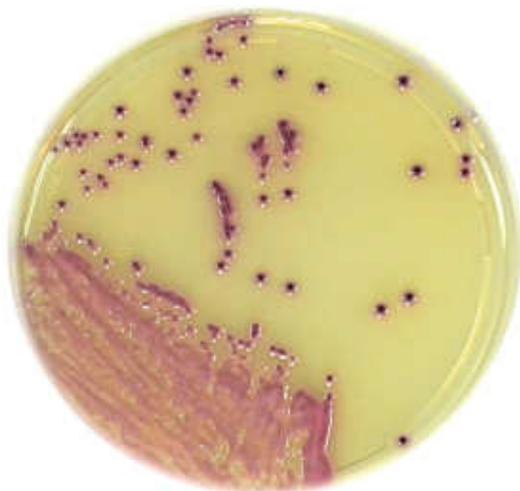
Mixed culture with MIC Test Strip

Chromogenic Muller Hinton for presumptive identification and susceptibility testing of various microorganisms from clinical specimens.

In the Intensive Care Unit the mortality rates for VAP, sepsis, surgical site or intra-abdominal, catheter related infections are critically high. Direct M.I.C. on CSF, positive blood culture bottles and other specimens from critical patients and direct M.I.C. on bronchial aspirates from patients with VAP can contribute with timely and essential information to save the life of patients.

| Packaging | ref. |
|-----------|--------|
| 20 plates | 11618 |
| 500 g | 611618 |
| 100 g | 621618 |

Liofilchem® Chromatic ESBL



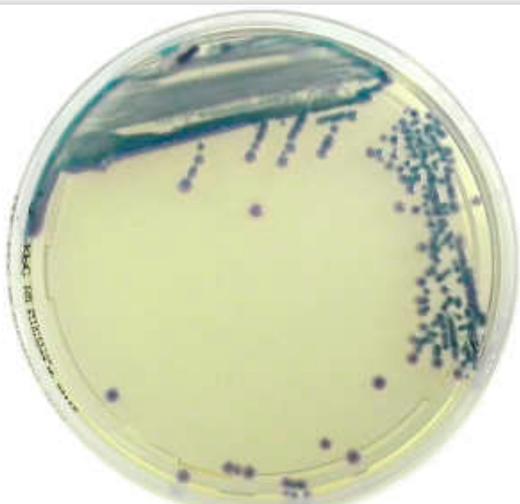
E. coli DSM 22311

Selective chromogenic medium for screening Gram-negative ESBL-producing bacteria.

ESBL (Extended Spectrum β -Lactamases) are enzymes that confer resistance to penicillins, extended-spectrum third generation cephalosporins (C3G) and monobactams. The ESBL-producing Enterobacteriaceae are responsible of severe hospital-acquired infections. The correct and early detection of ESBL-producing microorganisms is critical for addressing to the most appropriate antimicrobial therapy and avoiding the spread of infections. The Chromatic ESBL medium contains a mixture of chromogenic compounds and antibiotics that allow the the growth of ESBL-producing bacteria while inhibit the other bacteria, including the ampC-positive. While the AmpC-positive bacteria can still be treated with certain beta-lactamase-stable antibiotics, the presence of an ESBL infection seriously limits treatment options because of the wide resistance acquired.

| Packaging | ref. |
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| 20 plates | 11622 |

Liofilchem® Chromatic CRE



CRE-positive *Klebsiella pneumoniae* + CRE-positive *Escherichia coli*

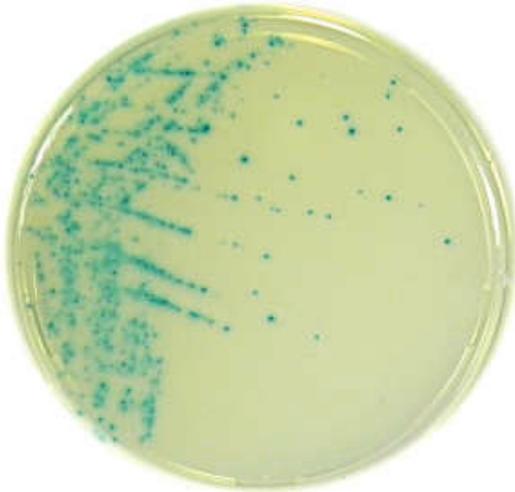
Chromatic CRE is a chromogenic screening medium for the detection of carbapenem-resistant Enterobacteriaceae.

Chromatic CRE contains a mixture of carbapenems for screening a wide variety of carbapenem-resistance mechanisms and provides presumptive identification of *E. coli* and the *Klebsiella*, *Enterobacter*, *Serratia* and *Citrobacter* (KESC) group directly from clinical specimens.

Carbapenems, successfully used to treat multi-resistant Gram-negative bacterial infections, including ESBL positive strains, are not efficacious against the Enterobacteriaceae resistant to carbapenems, thus generating a significant risk of hospital-acquired infections.

| Packaging | ref. |
|-----------|-------|
| 20 plates | 11619 |

Liofilchem® Chromatic VRE



Enterococcus faecium (VRE) ATCC® 12202

Chromogenic medium for screening vancomycin-resistant enterococci.

Chromatic VRE contains a mixture of antibiotics including vancomycin for screening Vancomycin-resistant enterococci (VRE) and provides presumptive identification of *Enterococcus faecium* and *Enterococcus faecalis* directly from clinical specimens.

VRE have recently been recognized as one of the most severe cause of nosocomial infections.

An intrinsic resistance (vanC, vanD, vanE, vanF etc) is found in *E. gallinarum* and *E. casseliflavus/E. flavescens* and shows low resistance to vancomycin. Instead, an acquired resistance of vancomycin in enterococci (vanA & vanB types) is mostly detected in *E. faecium* and *E. faecalis*.

The prompt detection of Vancomycin-resistance of *E. faecium* and *E. faecalis* is basic for avoiding the spread of this resistance to more virulent such as *S. aureus*.

| Packaging | ref. |
|-----------|-------|
| 20 plates | 11621 |

Liofilchem® Chromatic MRSA



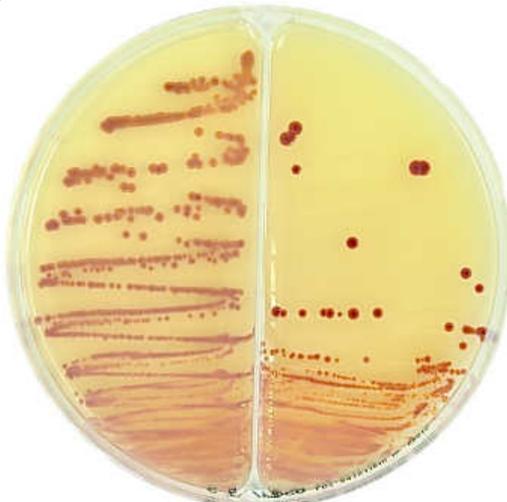
S. aureus ATCC® 43300

Selective chromogenic medium for isolating methicillin-resistant *Staphylococcus aureus*.

Methicillin resistant *Staphylococcus aureus* (MRSA) caused an increasing number of hospital infections in the recent years. A wide range of antimicrobial compounds, including the beta-lactam antibiotics, result unsuccessful for treating the methicillin resistant *S. aureus*.

| Packaging | ref. |
|---------------------------------------|--------|
| 20 plates | 10599 |
| 500 g | 610615 |
| 100 g | 620615 |
| Chromatic MRSA supplement 10 vials | 81078 |

Liofilchem® Chromatic MRSA/Staph aureus



methicillin-resistant *Staphylococcus aureus*

Double selective chromogenic plate for isolating and differentiating MRSA from MSSA.

CHROMATIC STAPH AUREUS medium has a clear appearance and light amber color, and is used for *Staphylococcus aureus* isolation. CHROMATIC MRSA medium has an opaque and cloudy appearance and light beige color, and is used for methicillin-resistant *Staphylococcus aureus* isolation.

| Packaging | ref. |
|-----------|-------|
| 20 plates | 18007 |

Liofilchem® Chromatic **Staph aureus**



S. aureus ATCC® 25923 + *S. sciuri* ATCC® 29062

Selective chromogenic medium for isolating *Staphylococcus aureus*.

Staphylococcus aureus is one of the most commonly found bacteria. *Staphylococcus aureus* can be pyogenic and toxinogenic, it is a commensal human germ (half of the population hosts *S. aureus*). It is also often detected in clinical specimens and food. *Staphylococcus aureus* today is a serious and diffused health problem.

| Packaging | ref. |
|-----------------------------------|--------|
| 20 plates | 11616 |
| 6 bottles x 100 mL | 481160 |
| 500 g | 610616 |
| 100 g | 620616 |
| Chromatic STAPH AUREUS supplement | |
| 10 vials | 81085 |

Liofilchem® Chromatic **Strepto B**



Mixed culture

Selective and differential chromogenic medium for isolating Group B streptococci (*Streptococcus agalactiae*).

Streptococcus agalactiae (GBS) is the main cause of infection in newborns of industrialized countries. The risk of infection arises in pregnant women with a vaginal colonization by GBS.

| Packaging | ref. |
|--------------------|--------|
| 20 plates | 11617 |
| 6 bottles x 100 mL | 481180 |
| 500 g | 610617 |
| 100 g | 620617 |

Liofilchem® Chromatic **Detection**



P. aeruginosa, *E. coli*, *E. faecalis*, *K. pneumoniae*, *P. mirabilis*, *S. aureus*

Chromogenic medium for enumeration and identification of microorganisms from urinary specimens and food.

The Chromatic DETECTION allows an easy and reliable differentiation of a wide range of species, complete in case of urine samples. The addition of various antibiotics to the Chromatic DETECTION medium is also useful for the detection of critical nosocomial and multiple resistant microorganisms.

| Packaging | ref. |
|--------------------|--------|
| 20 plates | 11611 |
| 6 bottles x 100 mL | 481130 |
| 500 g | 610612 |
| 100 g | 620612 |

Liofilchem® Chromatic **Candida**



C. albicans ATCC® 10231, *C. tropicalis* ATCC® 750 *C. krusei* ATCC® 6258

Selective chromogenic medium for isolating and differentiating *Candida* species.

Candida species are often responsible of serious nosocomial and systemic fungal infections.

Candida species are usual commensal yeasts present in the human skin, gastro-intestinal tract and vagina, which can occasionally become opportunistic pathogens.

| Packaging | ref. |
|--------------------|--------|
| 20 plates | 11612 |
| 6 bottles x 100 mL | 481110 |
| 500 g | 610613 |
| 100 g | 620613 |
| 20 plates 60 mm | 163692 |

Liofilchem® Chromatic **Coli Coliform**



E.coli ATCC® 25922 + *K. pneumoniae* ATCC® 13883

Selective chromogenic medium for *E. coli* and coliforms isolation and enumeration in foods and water.

The detection of *E. coli* and coliforms is one of the main criteria to define the quality of water and food.

Drinking water can be contaminated by *E.coli* following a period of intense rains, or because of an insufficient treatment.

Coliforms, lactose fermenting Enterobacteriaceae, are bacteria found in the intestinal flora of blooded animals, in soil and water.

Escherichia coli and thermotolerant *Klebsiella* are commonly responsible of fecal contaminations, through animal waste.

| Packaging | ref. |
|--------------------|--------|
| 20 plates | 11613 |
| 6 bottles x 100 mL | 481120 |
| 500 g | 610610 |
| 100 g | 620610 |
| 20 plates 60 mm | 163702 |

Liofilchem® Chromatic **E.coli O157**



Escherichia coli O157:H7 ATCC® 35150

Selective chromogenic medium for detecting *E. coli* O157.

Escherichia coli O157:H7 causes severe foodborne illness, and is a member of a class of pathogenic *E. coli* known as verocytotoxin producing *E. coli* (VTEC).

Infection often leads to hemorrhagic diarrhea, and occasionally to kidney failure, especially in young children and elderly persons.

Transmission is via the fecal-oral route, and most illness has been associated with eating undercooked, contaminated ground beef, swimming in or drinking contaminated water, and eating contaminated vegetables.

| Packaging | ref. |
|-----------|--------|
| 20 plates | 11610 |
| 500 g | 610614 |
| 100 g | 620614 |

Liofilchem® Chromatic **Salmonella**



Salmonella typhimurium ATCC® 14028

Selective chromogenic medium for isolating and differentiating *Salmonella* spp.

Salmonella spp. is found in the environment and in cold- and warm-blooded animals including humans. *Salmonella* spp. causes typhoid fever, paratyphoid fever, and foodborne illness.

Salmonella infections are zoonotic and can be transferred between humans and nonhuman animals. Infections are also caused by ingestion of contaminated food and are particularly hazardous in older adults and those who are immunocompromised.

| Packaging | ref. |
|----------------------------------|--------|
| 20 plates | 11614 |
| 6 bottles x 100 mL | 481140 |
| 500 g | 610611 |
| 100 g | 620611 |
| TWEEN 20 Supplement 2 x 50 mL | 80032 |

Liofilchem® OA **Listeria** agar



Listeria monocytogenes

Selective differential chromogenic medium for detecting and counting *Listeria monocytogenes* from food samples (ISO 11290).

Listeria monocytogenes is one of the most virulent foodborne pathogens, responsible for an increasing amount of deaths worldwide annually. Listeriosis is the major cause of death among foodborne bacterial pathogens.

Infections by *Listeria monocytogenes* can happen in any stages of food processing. *Listeria monocytogenes* can be found in the fecal matter, soil and waste waters.

| Packaging | ref. |
|---|--------|
| 20 plates | 10620 |
| 500 g | 610601 |
| 100 g | 620601 |
| O.A. LISTERIA supplement (4+4) x 500 mL | 81074 |

Liofilchem® TBX agar

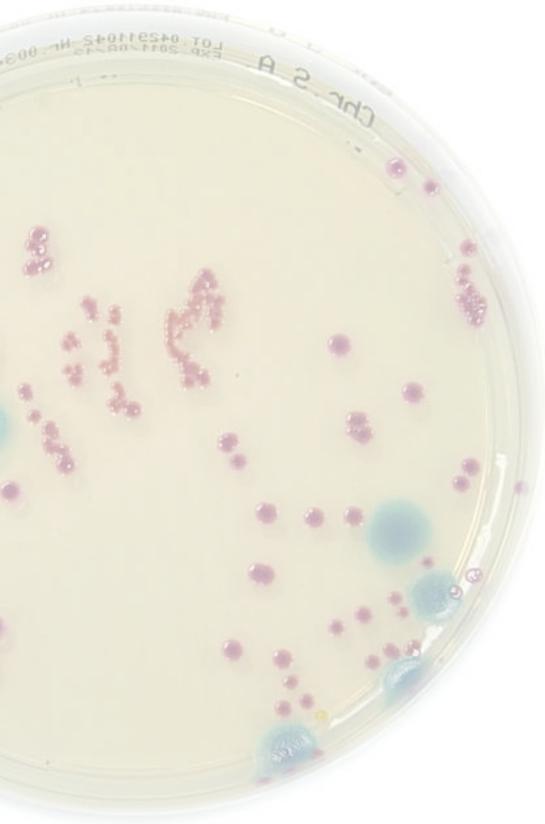


E.coli ATCC® 25922

Selective chromogenic medium for detecting and enumerating *E. coli* in food according to ISO 16649.

X-glucuronide, contained in the TBX agar formulation, is the chromogenic agent that allows the determination of the β -D-glucuronidase activity, which is a highly specific enzyme for *E. coli*. Gram-positive bacteria are inhibited by bile salts.

| Packaging | ref. |
|--------------------|--------|
| 20 plates | 10522 |
| 6 bottles x 100 mL | 432300 |
| 500 g | 610224 |
| 100 g | 620224 |



Liofilchem®

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