HardyCHROM™
FOOD Industry

HARDY DIAGNOSTICS
A Culture of Service™

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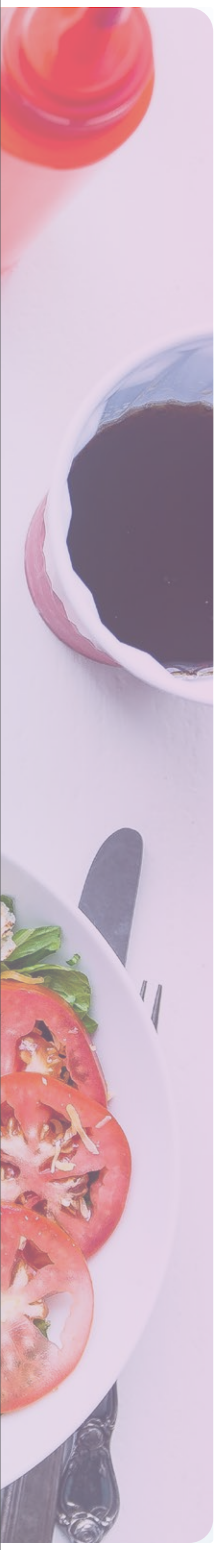
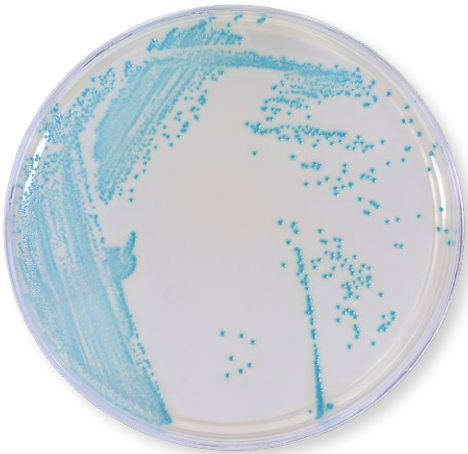


HardyCHROM™ Listeria

15x100mm plate, 10/pk
Cat. no. G317

Distinct read-out in 24 to 48 hours!



Intended Use

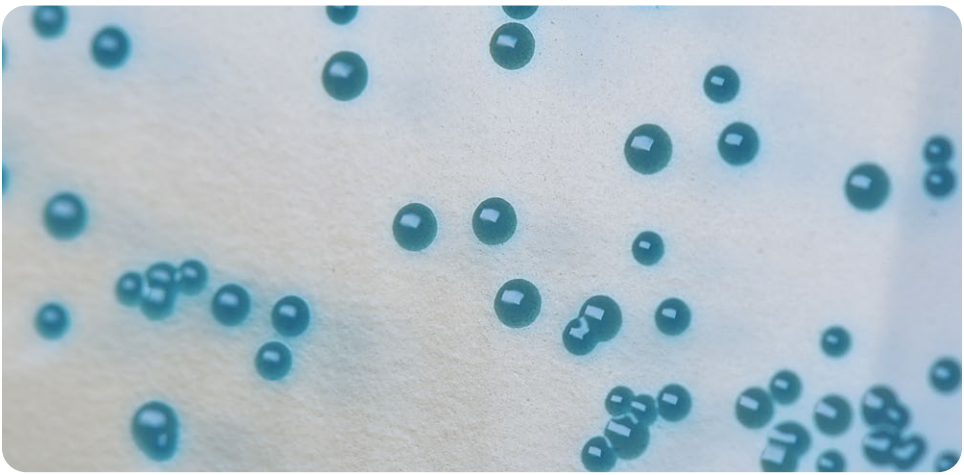
HardyCHROM™ Listeria is a chromogenic medium recommended for the selective isolation, differentiation, and enumeration of *Listeria monocytogenes* from food and environmental samples by colony color and appearance.

Features:

- Modified and improved ALOA formula
- Differentiates L. monocytogenes and L. ivanovii from other Listeria species
- *L. monocytogenes* colonies turn turquoise with a white halo for easy read-out
- Results as early as 24 hours

Pathogen Spotlight

Listeria was first discovered around 100 years ago. Historically, it has occasionally been the cause of meningitis and septicemia, especially in newborn babies. This pathogen received little attention until the discovery that *Listeria monocytogenes* could be transmitted to contaminate food. Foodborne outbreaks of listeriosis were reported in North America and Europe in the 1980s and the incidence of the disease rose steadily year by year. In the UK, a peak of nearly 300 cases was reached in 1988. This is thought to have been the result of a single foodborne outbreak associated with pork pâté.



These outbreaks led the World Health Organization to conclude that *Listeria monocytogenes* is an environmental contaminant mainly transmitted to humans through food. Although the incidence of listeriosis is at least 100 times lower than those of other foodborne pathogens, such as *Campylobacter* and *Salmonella*, the seriousness of the disease, the high mortality rate (up to 40% in some outbreaks), and the fact that it mainly affects vulnerable sections of the population, has focused a great deal of attention on *L. monocytogenes.* It has now become the target for much of the microbiological testing carried out by the food industry.

HardyCHROM™

Salmonella

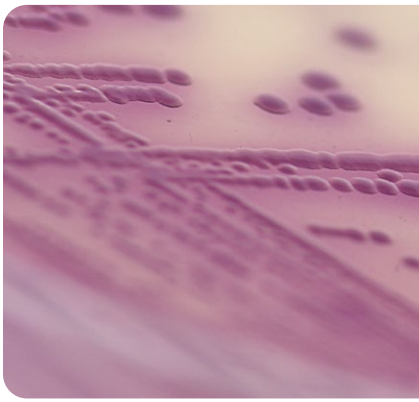
15x100mm plate, 10/pk
Cat. no. G309

Easy detection of Salmonella!

Pathogen Spotlight

There are many different groups, called serotypes, of *Salmonella*. Scientists classify each serotype based on the structures on the bacteria's surface. The serotypes also differ in how often they cause illness in people and in what types of food and other places they contaminate. Some serotypes can cause severe illness in people, while others cause milder illness. Scientists have described more than 2,500 Salmonella serotypes, but less than 100 cause most cases of salmonellosis in people. Both FDA and CDC consider all serotypes capable of infecting people.

Freezing and drying, which typically prevent the growth of bacteria, do not kill *Salmonella*. The bacteria can survive several weeks in dry environments and several months in wet environments.



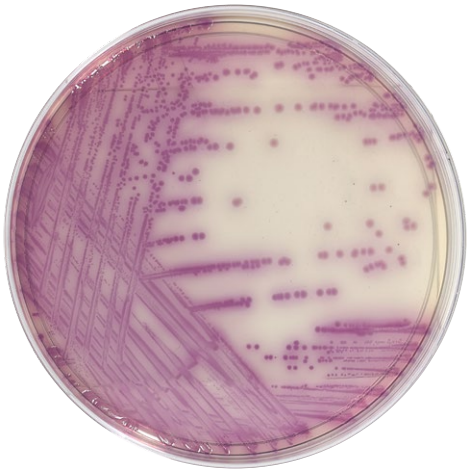
Color Read-out

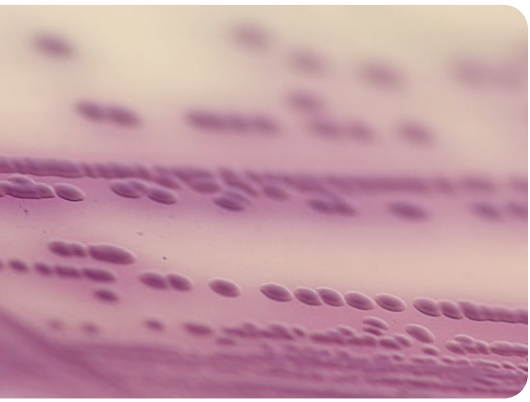
- Salmonella spp., including S. typhi and S. paratyphi A, produce pink to magenta colonies as a result of propylene glycol utilization
- Other members of the family Enterobacterales produce blue, blue-green, white, or colorless colonies, while Gram-positive bacteria and non-glucose fermenting bacteria will be inhibited

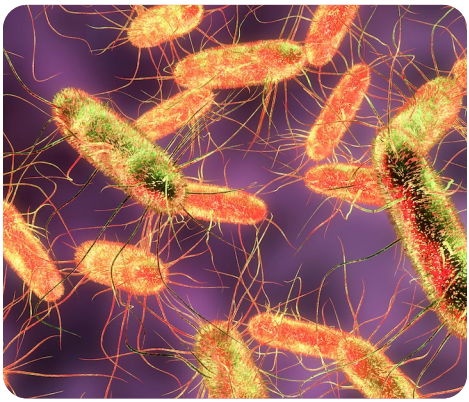
Intended Use

HardyCHROM™ Salmonella is a chromogenic medium recommended for the selective isolation and differentiation of *Salmonella* spp. from other members of the Enterobacterales based on colony color.

This medium utilizes the ability of *Salmonella* spp. to produce acid from propylene glycol. This characteristic is used in conjunction with a chromogenic indicator to differentiate *Salmonella* spp. from Proteus spp. and other Enterobacterales.







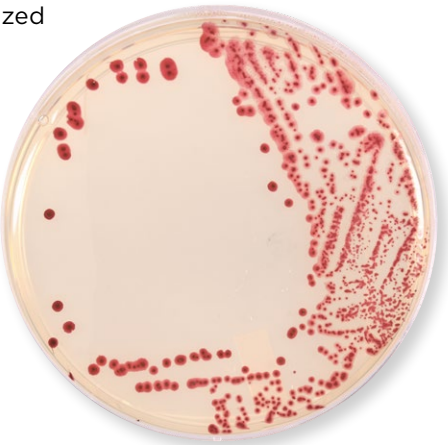
HardyCHROM™ Campy

15x100mm plate, 10/pk
Cat. no. G339

Color read out in 48 hours or less!

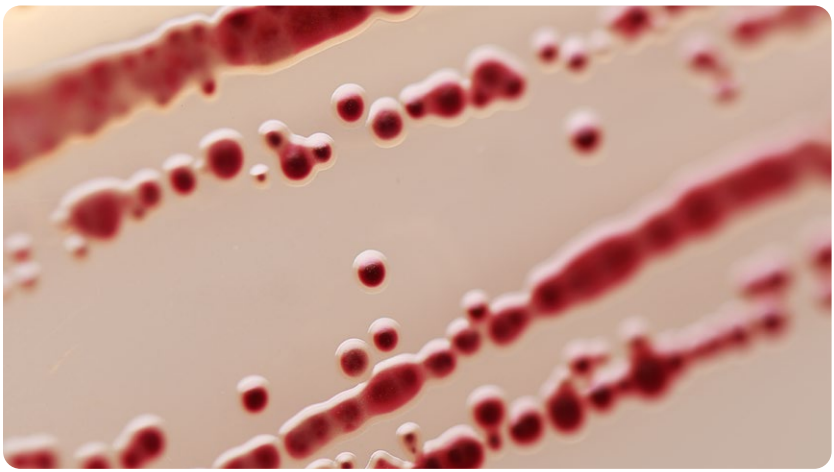
Pathogen Spotlight

Campylobacter species have been recognized as a major cause of diarrheal disease in children and adults. Originally, these organisms were only associated with a variety of veterinary diseases. However, *Campylobacter* spp. are also characterized as among the top bacterial agents of human foodborne gastroenteritis. The organism may also be transmitted by contaminated food or water. Poultry is a primary reservoir of *Campylobacter* and studies show that their prevalence may be greater than 80% in commercial chicken carcasses.



Features and Benefits

- *Campylobacter* forms red colonies on a translucent background, making detection easy
- Selects for Campylobacter species from mixed samples, especially *C. jejuni, C. lari, C. coli*, and *C. fetus*
- Can be used with existing FDA-BAM or USDA-FSIS pre-enrichment procedures, or for direct plating procedures



Intended Use

HardyCHROM™ Campy Agar is recommended as a screening medium for the selective isolation and chromogenic differentiation of *Campylobacter* spp. from direct stool cultures or from food or poultry samples.

HardyCHROM™ ECC

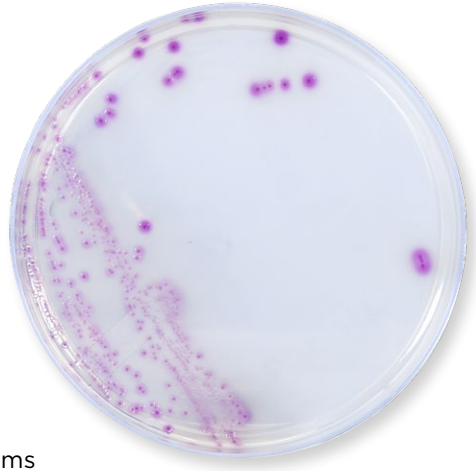
15x100mm plate, 10/pk
Cat. no. G303

For the rapid and reliable detection and differentiation of E. coli and other coliforms.

Pathogen Spotlight

Escherichia coli is one of the predominant species of facultative anaerobes in the human gut and usually harmless to the host; however, a group of pathogenic *E. coli* has emerged that causes diarrheal disease in humans. Referred to as diarrheagenic *E. coli*, or commonly as pathogenic *E. coli*, these groups are classified based on their unique virulence factors and can only be identified by these traits. Hence, analysis for pathogenic *E. coli* often requires that the isolates be first identified as *E. coli* before testing for virulence markers. The pathogenic groups includes enterotoxigenic *E. coli* (ETEC), enteropathogenic *E. coli* (EPEC), enterohemorrhagic *E. coli* (EHEC), enteroinvasive *E. coli* (EIEC), enteroaggregative E. coli (EAEC), diffusely adherent *E. coli* (DAEC) and perhaps others that are not yet well characterized. Of these, many have been implicated in food or waterborne illness.

Intended Use



HardyCHROM™ ECC is a chromogenic media recommended for the detection, differentiation, and enumeration of *Escherichia coli* and other coliforms in food, water, or environmental samples based on colony color.

Routine testing to assess the sanitary quality of food and water is directed at the detection and enumeration of indicator organisms rather than pathogens. The coliform group of organisms is recognized as the principal indicator of unsanitary conditions. Coliform organisms are characterized as Gram-negative, lactose-fermenting rods. They are present in the intestinal tract of humans and other animals, and non-fecal coliforms are found in many areas of the environment, including in soil and on plants.

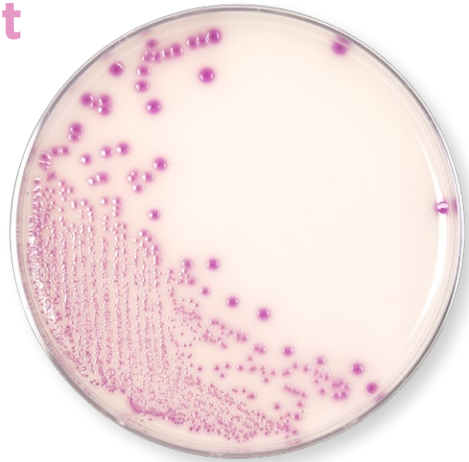
- *E. coli* can be identified as pink to violet colored colonies on the plate
- Other coliform bacteria will appear as turquoise colonies
- Selective agents have been added to inhibit the growth of Gram-positive and other non-coliform bacteria

HardyCHROM™ 0157

15x100mm plate, 10/pk
Cat. no. G305

Highly selective, results in 24 hours!

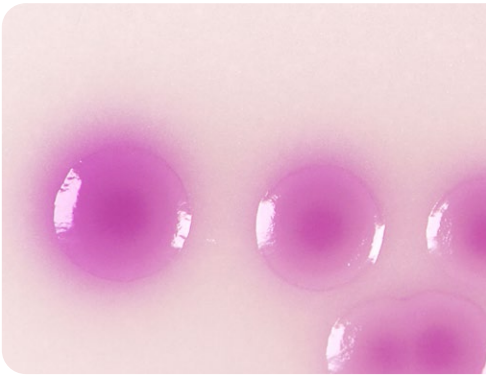
Pathogen Spotlight



Escherichia coli O157 is a pathogen responsible for outbreaks of serious foodborne disease. It has been established that cattle are the major reservoir for *E. coli* O157, with outbreaks of disease directly associated with the consumption of bovine food products. Traditional selective agars have been based on the ability of the organism to ferment either sorbitol or rhamnose, and the absence of beta-glucuronidase activity in order to isolate *E. coli* O157.

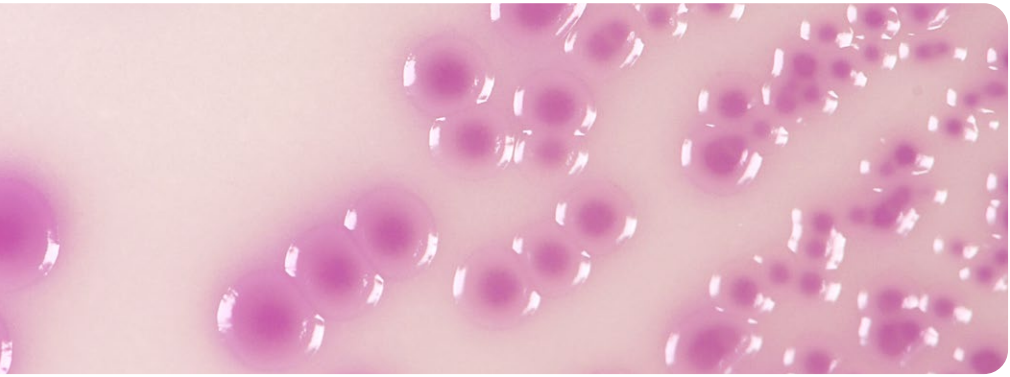
Intended Use

HardyCHROM™ O157 is a selective and differential medium recommended for the isolation of enterohemorrhagic *E. coli* O157 from food and environmental sources. Chromogenic substances in the media facilitate detection by colony color.



Color Read-out

- *E. coli* O157 produce purple-pink colored colonies



HardyCHROM™

Staphylococcus aureus

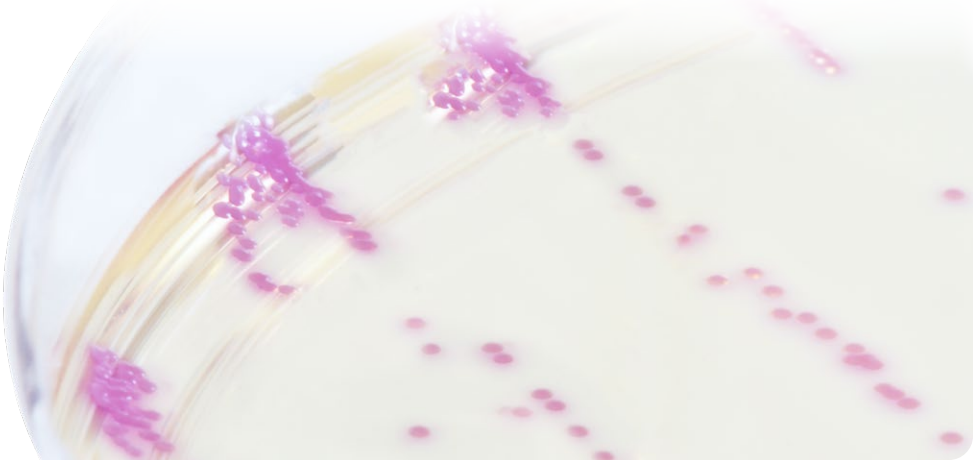
15x100mm plate, 10/pk
Cat. no. G311

Bright color development!

Intended Use

HardyCHROM™ Staph aureus is a chromogenic medium recommended for the isolation, differentiation, and enumeration of *Staphylococcus aureus* by colony color.

S. aureus has also been implicated in food poisoning outbreaks. Many *S. aureus* strains produce enterotoxins that cause food poisoning when ingested. Food poisoning, bacteremia, pneumonia, toxic shock syndrome, and meningitis are some of the more serious conditions that can be caused by *S. aureus* infection.



Color Read-out

- *Staphylococcus aureus* can be identified as smooth, deep pink to fuchsia colored colonies on the plate
- Other organisms may appear as colorless, blue, turquoise, or cream colonies, or will be inhibited

HardyCHROM™ Vibrio

15x100mm plate, 10/pk
Cat. no. G319

The only chromogenic media to differentiate Vibrio cholerae, Vibrio parahaemolyticus and Vibrio vulnificus!

Pathogen Spotlight

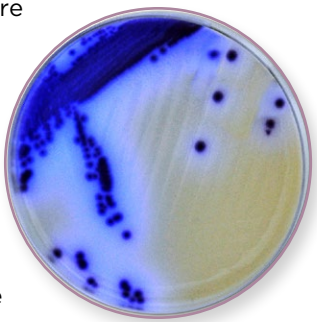
The Vibrio genus is comprised of Gram-negative, halophilic, non-spore forming rods that are straight or have a single, rigid curve. All *Vibrio* spp. are motile, and most species are oxidase- and catalase-positive. Several species in the genus are known human pathogens, the most notable of which are *V. cholerae, V. parahaemolyticus*, and *V. vulnificus*. Most disease-causing strains are associated with gastroenteritis following ingestion of raw or uncooked shellfish or drinking contaminated water.

Intended Use

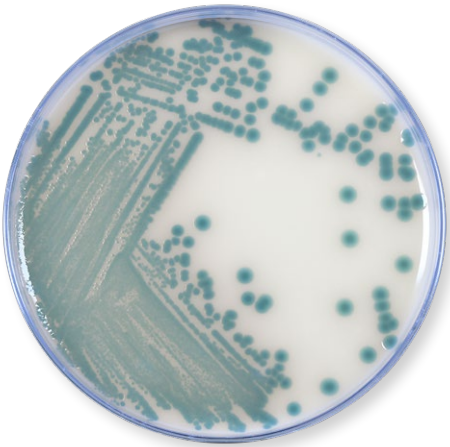
HardyCHROM™ Vibrio is recommended for use as a selective and differential growth medium for the cultivation, isolation, and differentiation of *Vibrio* spp. from food and environmental samples.

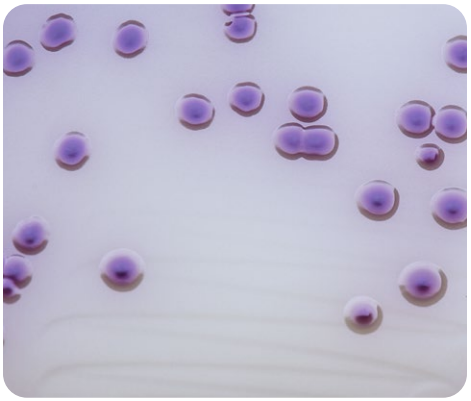
Color Read-out

- *Vibrio parahaemolyticus* produces colonies that are turquoise in color
- *Vibrio cholerae* produces colonies that are magenta to purple in color and do not fluoresce under UV light
- *Vibrio vulnificus* produces colonies that are magenta in color and fluoresce under UV light
- *Vibrio alginolyticus* and other Vibrio spp. produce colonies that are colorless to olive in color
- *Enterococcus faecalis* may grow on HardyCHROM™ Vibrio, but colonies appear sky blue



Vibrio vulnificus (ATCC® 27562) colonies growing under UV light.



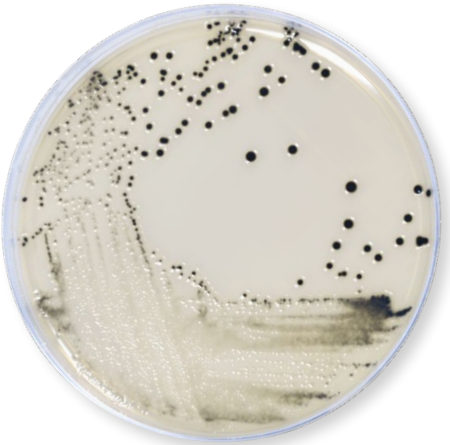


HardyCHROM™

Sakazakii

15x100mm plate, 10/pk
Cat. no. G315

Provides assurance of product purity!

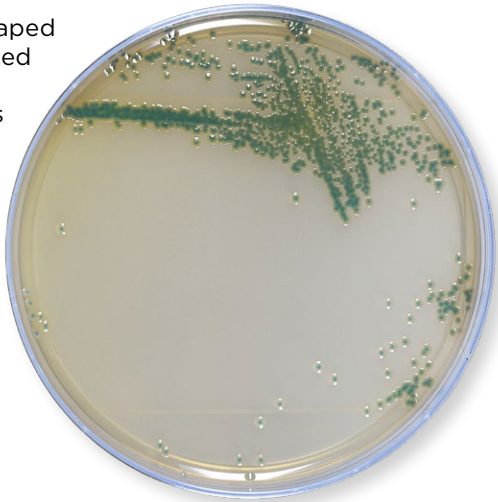


Intended Use

HardyCHROM™ Sakazakii is a chromogenic medium recommended for the selective isolation and differentiation of Cronobacter (*Enterobacter*) *sakazakii* from other members of the family Enterobacterales based on colony color.

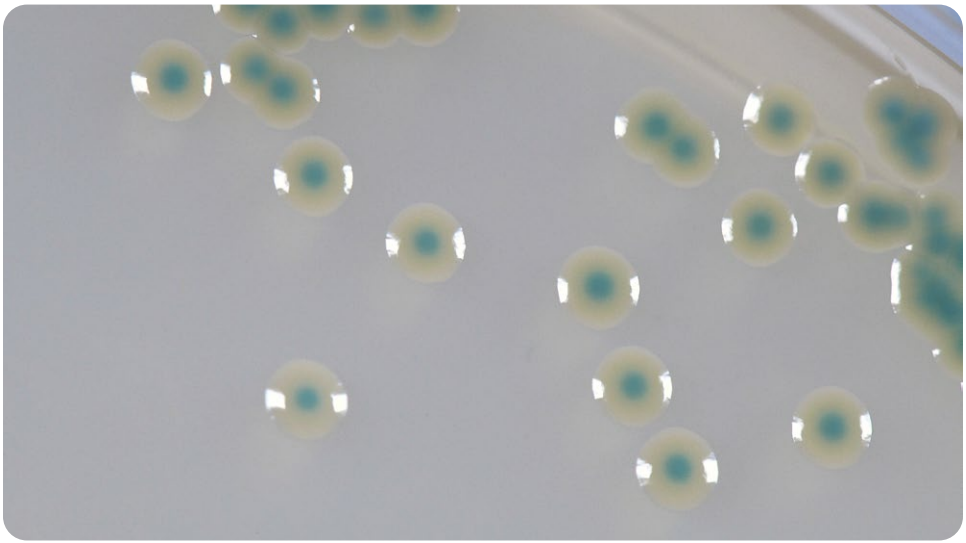
Pathogen Detection

C. sakazakii is a Gram-negative, rod-shaped opportunistic pathogen that is associated with a rare, but life threatening form of meningitis and necrotizing enterocolitis in neonates. The source of infection has been linked to the ingestion of powdered milk-based infant formula intrinsically contaminated by *C. sakazakii*. The organism is both thermotolerant and resistant to dessication, which enables it to survive manufacturing processes.



Features and Benefits:

- *C. sakazakii* produces smooth, bluish-green colonies
- Other members of the Enterobacterales will produce white or colorless colonies with or without black centers
- Most Gram-positive bacteria and yeast will be inhibited on this medium



HARDY DIAGNOSTICS

A Culture of Service™

MORE THAN 40 Years of Bringing You A Culture of Service

100% Employee Owned

ESTABLISHED 1980

MADE IN USA

Hardy Diagnostics donates 1% of net profits to charity.

bsi ISO 13485 Quality Management for Medical Devices CERTIFIED

FM 572526

Hardy Diagnostics has a Quality Management System that is certified to ISO 13485 and is a FDA licensed medical device manufacturer.

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