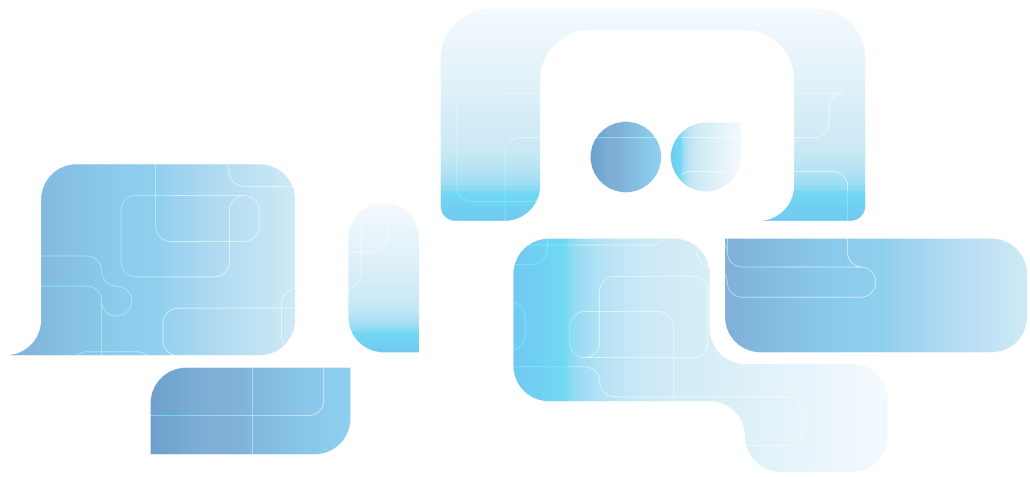




# MICROBIOLOGY PRODUCT COLLECTION





# The GVS Group

In over 45 years of history, GVS has evolved from a supplier of components for the healthcare sector to a global group that produces highly technological diversified filtration solutions.

## Wide range of products and custom design expertise

GVS produces a wide range of filter materials, filters and off-the-shelf components in all its divisions, enabling its customers to reduce the design time for new product launches.

All the GVS divisions work in highly regulated environments and the Group therefore operates with extremely high-quality standards. Thanks to its research and development centres located all over the world, GVS is also able to offer an extremely efficient and personalized service to meet its customers' needs: from product conception and design to testing and mass production.

## Dynamic and flexible structure

GVS has developed a streamlined, dynamic and technologically advanced structure that has made it possible to achieve constant and balanced growth. The Group currently employs a total of 4869 people who work in automated assembly departments, in lines for the production and processing of filter membranes and in class 10,000 and 100,000 cleanrooms.

## Global growth

The GVS Group has always paid great attention to research, development and innovation of its products and processes and has shown a strong trend towards development in global markets since its foundation.

In addition to the corporate headquarters in Bologna, GVS currently has 19 plants in Italy, United Kingdom, Brazil, United States, China, Mexico, Romania e Puerto Rico, and 29 commercial offices located all over the world. GVS has always adopted a "glocal" approach: it operates locally in contact with its customers, but relies on the strength of a global network.

For more information, visit [www.gvs.com](http://www.gvs.com)



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## **GVS Filter Technology is a fully integrated producer and supplier of microbiological solutions for the laboratory and testing community.**

**Microbiological testing includes the controlled analysis of water, beverage, food, pharmaceuticals and other consumer products and their processing equipment to evaluate for the presence of micro-organisms that may cause harm to the user or reduce the product quality or performance.**

Microbiological testing is a crucial requirement across many industries worldwide where product, process and human health are influenced by the presence of micro-organisms: living bacteria, viruses, yeasts and molds that are too small to be visible to the naked eye.

International test procedures and standard lab practices have been established to provide strict methods for micro-organism analysis and identification.

Micro-organisms can be harmful or beneficial to the product or process under analysis.

Some diseases of human, animals and plants are caused by unwanted bacteria, yeasts and mold. Other beneficial yeasts and molds are responsible for numerous desirable processes in beer, wine, and food production and biotechnology.



**GVS products for microbiological testing include applications and testing for:**

- ◆ **Contamination of work surfaces and equipment**

- ◆ **Microbiological analysis of:**

- ◆ Potable water
- ◆ Beer and wine
- ◆ Waste water
- ◆ Dairy products
- ◆ Soft drink and concentrates
- ◆ Fruit juices
- ◆ Fermented products

- ◆ **Detection of:**

- ◆ Bacteria, fungi, molds
- ◆ Escherichia coli (E.Coli)
- ◆ Fecal streptococci and fecal coliforms
- ◆ Staphylococci
- ◆ Listeria
- ◆ Enterococci
- ◆ Pseudomonas aeruginosa
- ◆ Legionella

# Membranes For Filtration

## Pore size selection guide

The technical requirements for membranes used in microbiological quality control are subject to strict national and international standards. At the same time the requirements of the market is continually changing as a result of the introduction of new products.

GVS provides a wide and versatile range of membrane filter products to supply the market needs. Our R&D department is continually developing new products for the evolving markets. All GVS membranes consist of high quality materials with a high degree of biocompatibility and are manufactured in ISO certified facilities to ensure reliable performance each and every time.

Test strains: Bacteria/ Yeasts	Pore size [µm]			Used for Validation	Standards
	0,2	0,45	0,8		
Brevundimonas diminuta	x				DSM 1635
Pseudomonas diminuta	x			x	ATCC 19146
Escherichia coli (E. coli)	o	x		x	ATCC 29522
Lactobacillus fermentum	o	x			ATCC 9338
Pseudomonas aeruginosa	x				ATCC 10145
Staphylococcus aureus	o	x		x	ATCC 25923
Enterococcus faecalis	o	x			ATCC 19433
Enterobacter aerogenes	o	x			ATCC 13048
Serratia marcescens	o	x		x	ATCC 14756
Streptococcus faecalis	o	x			ATCC 19433
Pediococcus cerevisiae	o	o	x		ATCC 43013
Pediococcus acidilactici	o	x			ATCC 33314
Legionella pneumophila	x				ATCC 33153
Bacillus subtilis	o	o	x	x	ATCC 6633
Salmonella abony	o	x			NCTC 6017
Saccharomyces cerevisiae	o	o	x	x	DSM 1848
Candida albicans	o	o	x		ATCC 10231
Zygosaccharomyces bailii	o	o	x		ATCC 42476
Aspergillus niger	o	o	x		ATCC 16404
Total count detection		x			

x=recommended pore size

o=alternative pore size

## Speed Pack Sterile MCE Membrane Ribbons

### SPEED PACK



GVS Speed Pack folded ribbons provide the user with the same quality and reliability as the GVS individually packed MCE membranes. The folded ribbons provide hands-free convenience, reduce laboratory time and boost lab efficiency.

Speed Pack have ribbons designed for use with most popular membrane dispensers.

Packaged in 150 count ribbons are available to order in pack size of 150 or 600 (4 x 150). Select either gridded white or black sterilized membranes in a continuous folded ribbon for easy dispensing and convenience.

GVS MCE sterile filtration membranes are ideally used for the microbiological culturing and examination of water, beverages, beer, wine, juices, waste water, pharmaceuticals, food and other critical applications. It boosts a rapid flow rate and high throughput for consistent and uniform results.

- Available in 0.2 µm, 0.45 µm and 0.8 µm pore sizes
- Available in White or Black membranes with gridded surfaces

- Pre-sterilized (gamma irradiation) and ready to use product
- Comes in box of 150 count
- Sold in packs of 150 or or 600 (4 x 150), 47 mm. For 50 mm size please contact GVS sales team
- Compatible with various dispensers (Microsart E-Motion, EZ-Pak, EZ-Pak Curve, Whatman Membrane-Butler)
- Individually sealed filters are printed with the membrane specification and lot number on the clear cover of each sealed filter
- Membranes are numbered from 1 to 150

White MCE membranes with Black Grids are widely used for general purpose examination and enumeration of microorganisms. Commonly used for water, waste-water, pharmaceutical, medical, food and beverage analysis. The contrasting grid lines facilitate counting of colonies.

Black MCE with White Grids provide color contrast between the filter and white or beige microorganisms without the need for counter-stain. Commonly used for bottled water, carbonated beverages, beer and wine analysis. The contrasting grid lines facilitate counting of colonies.

### Speed Pack Ribbons of Membranes

#### Mixed Cellulose Esters (MCE) membrane, Sterile Ordering information

Dimensions Packaging	47 mm 150/pk	47 mm 150/pk	47 mm 600/pk	47 mm 600/pk
Color	white	black	white	black
0.2 µm	SPNCW02BG47S	on demand	SPNCW02BG47S6	on demand
0.45 µm	SPNCW04BG47S	SPNCB04WG47S	SPNCW04BG47S6	SPNCB04WG47S6
0.8 µm	SPNCW08BG47S	SPNCB08WG47S	SPNCW08BG47S6	SPNCB08WG47S6

#### Funnel Ordering information

Code	Description	Quantity
FUNNELA100SR	PP Funnel 100 ml sterile for Speed-Pack	150
FUNNELA250SR	PP Funnel 250 ml sterile for Speed-Pack	150



# Membranes For Filtration

## Sterile MCE Membranes single-packed



GVS Mixed Cellulose Esters (MCE) Filtration Membrane is an unsupported, hydrophilic membrane. Its rapid flow rate and high throughput make it ideal for use in bioburden and sterility testing.

### Characteristics

- High flow rate: fast filtration rates
- Uniform pore structure: consistent flow and diffusion rates
- Lot-to-lot consistency
- Microbiological and particulate analysis
- Black for food and beverage applications

### Consistent Uniformity Improves Control and Performance

Packaged individually for convenience, handling, economy and integrity, each 1+PAC includes a 47 mm presterilized MCE membrane filter. They are available with or without an absorbent nutrient pad in either white or black. This all-in-one pack permits individual testing, eliminating the possibility of contaminating a large supply of presterilized filters. Filters, pads and envelopes are presterilized by gamma irradiation.

### White 1+ PAC

White gridded discs are designed for the recovery and retention of E. coli bacteria in water / waste-water analysis as well as other microbiological tests. The filters are certified to meet specifications listed in APHA Standard Methods. The 1+PAC is also ideal for sterility and bioburden testing in QC/QA laboratories.

### Black 1+ PAC

GVS offers black MCE filters specifically manufactured and tested for quality assurance testing in food and beverage analysis. Without proper microbiological testing, the taste, odor and appearance of the final product can be ruined, resulting in lost production time, expensive in-line cleanup and end product loss due to spoilage. The black filters provide a superb contrast for early and accurate colony counting for total bacteria, yeast and mold organisms. The filters are certified to meet specifications listed in the APHA Standard Methods. For a certificate of analysis, please request it on your purchase order.

### Performance

Pore Size (µm)	Flow Time (s)	Volume/Vacuum (ml/in Hg)	Flow Rate (ml/min/cm <sup>2</sup> @ 10 psi)	Bubble Point (psi)
0.2	60-136	250/20	11.70-26.51	52-65
0.45	23-46	250/20	34.58-69.16	30-42
0.8	5-18	250/20	88.37-318.13	11-19

### Mixed Cellulose Esters membrane - Sterile, white and black Ordering information

Pore sizes	Individually Packaged Without Pad Gridded				Individually Packaged with Pad Gridded		
	47 mm 250/pk	47 mm 250/pk	47 mm 1000/pk	47 mm 1000/pk	47 mm 100/pk	47 mm 100/pk	47 mm 1000/pk
	white	black	white	black	white	black	white
0.2 µm	1216732		1216737		1214872		
0.45 µm	1216733	1216730	1216738	1216735	1215237	1214866	1215249
0.8 µm	1216734	1216731		1216736	1225460		

## Nutrient Liquid Media for Culturing and Enumeration

GVS provides an extensive range of culture broths and solutions for the cultivation, detection and enumeration of bacteria, yeast, fungi, viruses, pathogens and molds. Each nutrient rich liquid media is specifically developed for use in the analysis of drinking water, surface water, milk, juice, beverages, sugar based drinks, food and pharmaceutical samples. These ready to use liquid medias are packaged in individual pre-portioned ampoules for ease of use. All liquid medias undergo detailed quality control checks in accordance with standard methods, guaranteeing uniform preparation every time. Comprehensive end product testing ensures a stable sterile liquid media for optimal culture growth.

### Quick Media Selection Guide for Common Evaluation Processes and Micro-Organisms Water, wastewater and purified water

Quality control systems for wastewater analysis and production systems using water. Typical organisms include Pseudomonads, Escherichia coli, Staphylococci, spore formers, yeasts and molds.

Selective microorganism	Positive test organism	Media	Product No.
Acid-tolerant micro-organisms Lactic-acid bacteria	Lactobacillus fermentum [ATCC 9338] Candida albicans [ATCC 10231]	Orange Serum Broth	10496104
Aerobic bacteria	Escherichia coli (E.coli) [ATCC 25922]	HPC Broth HPC Broth with TTC M-TGE Total Count Broth Total Count Media with TTC	10496164 10496151 10496102 10496113
Total Coliforms and Escherichia coli	Escherichia coli (E.coli) [ATCC 25922]	Brilliant Green Bile Broth EC Broth M-Endo Coliform Broth M-FC Broth M-FC Broth with Rosolic Acid MI Broth MI Agar EC Broth with MUG M-TGE Total Count Broth	10496710 10496714 10496103 10496124 10496114 10496192 10496847 10496709 10496102
Enterococci	Enterococci faecalis [ATCC 19433]	Enterococcus Broth	10496120
Fecal Streptococci	Escherichia coli (E.coli) [ATCC 25922] Streptococcus faecalis [ATCC 19433]	KF-Streptococcus Broth	10496125
Pseudomonas aeruginosa	Pseudomonas aeruginosa [ATCC 10145]	Cetrimide Broth Pseudomonas Broth	10496146 10496119
Staphylococci	Staphylococcus aureus [ATCC 25923]	Mannitol Salt Broth	10496121
Yeast and Mold	Zygosaccharomyces bailii [ATCC 58445] Candida albicans [ATCC 10231]	PRY Broth (Preservative Resistant Yeast) M-Green Select Broth M-Green Yeast and Mold Broth	10496106 10496116 10496101

### Soft drinks, fruit juices, concentrates and sugar products

Due to different pHs and carbonation levels the nutrient media for detection of these contaminants are very specific.

Selective microorganism	Positive test organism	Media	Product No.
Acid-tolerant micro-organisms Lactic-acid bacteria Lactobacillus, Oenococcus (product spoiling organisms)	Lactobacillus fermentum [ATCC 9338] Candida albicans [ATCC 10231]	Orange Serum Broth Wallerstein Differential Broth (WLD)	10496104 10496109
Aerobic bacteria	Escherichia coli (E.coli) [ATCC 25922]	HPC Broth HPC Broth with TTC M-TGE Total Count Broth Total Count Media with TTC	10496164 10496151 10496102 10496113
Total Coliform and Escherichia coli	Saccharomyces cerevisiae [ATCC 9763]	Brilliant Green Bile Broth M-Endo Coliform Broth MI Broth MI Agar EC Broth with MUG M-TGE Total Count Broth	10496710 10496103 10496192 10496847 10496709 10496102

# Liquid Media

Selective microorganism	Positive test organism	Media	Product No.
Pseudomonas aeruginosa	Pseudomonas aeruginosa (ATCC 10145)	Cetrimide Broth	10496146
		Pseudomonas Broth	10496119
Yeast and Mold	Zygosaccharomyces bailii (ATCC 58445)	PRY Broth (Preservative Resistant Yeast)	10496106
	Candida albicans (ATCC 10231)	M-Green Select Broth	10496116
		M-Green Yeast and Mold Broth	10496101
Staphylococci	Staphylococcus aureus (ATCC 25923)	Mannitol Salt Broth	10496121

## Beer and Wine

Beer quality control is focused on beer spoiling bacteria like Lactobacilli and Pediococci as well as wild yeast.

Wine quality control is focussed on taste spoiling organisms including acid tolerant species like acetic acid bacterial and lactic acid bacterial as well as yeast and mold.

Selective microorganism	Positive test organism	Media	Product No.
Acetobacter		Orange Serum Broth (add 5-8% ethanol)	10496104
Aerobic bacteria	Escherichia coli (E.coli) (ATCC 25922)	Total Count Media with TTC	10496113
Bacteria in fermentation processes		Wallerstein Differential Broth (WLD)	10496109
Total Coliform and Escherichia coli	Saccharomyces cerevisiae (ATCC 9763)	M-Endo Coliform Broth	10496103
		M-Endo Coliform Broth	10496103
	Escherichia coli (E.coli) (ATCC 25922)	MI Broth	10496192
		MI Agar	10496847
Lactobacilli, Pediococci (beer spoiling organisms)	Lactobacillus fermentum (ATCC 9338)	Orange Serum Broth	10496104
	Candida albicans (ATCC 10231)	Wallerstein Differential Broth (WLD)	10496109
Yeast and Mold	Zygosaccharomyces bailii (ATCC 58445)	PRY Broth (Preservative Resistant Yeast)	10496106
	Saccharomyces cerevisiae (ATCC 9763)	Wallerstein Nutrient Broth (WLN)	10496108

## Dairy Products

Dairy quality control is focused on the presence of bacteria, yeasts and mold and milk borne diseases. E.coli and Streptococci in dairy products may cause illness or spoilage. Other beneficial bacteria may be specifically added to milk for fermentation to produce products like yogurt and cheese.

Selective microorganism	Positive test organism	Media	Product No.
Aerobic bacteria	Escherichia coli (E.coli) (ATCC 25922)	HPC Broth	10496164
		HPC Broth with TTC	10496151
		M-TGE Total Count Broth	10496102
		Total Count Media with TTC	10496113
Total Coliform and Escherichia coli	Saccharomyces cerevisiae (ATCC 9763)	M-Endo Coliform Broth	10496103
		Brilliant Green Bile Broth	10496710
	Escherichia coli (E.coli) (ATCC 25922)	EC Broth	10496714
		MI Broth	10496192
		MI Agar	10496847
Enterococci	Enterococci faecalis (ATCC 19433)	Enterococcus Broth	10496120
Fecal Streptococci	Streptococcus faecalis (ATCC 19433)	KF-Streptococcus Broth	10496125
Lactobacillus	Lactobacillus plantarum (ATCC 8014)	MRS Broth	10496112
	Lactobacillus fermentum (ATCC 9338)	Wallerstein Differential Broth (WLD)	10496109

# Liquid Media

## Food

Quality control systems for raw materials and final product. Typical organisms include Pseudomonads, Escherichia coli, Staphylococci, Streptococci, yeasts and molds.

Selective microorganism	Positive test organism	Media	Product No.
Acid-tolerant micro-organisms	Lactobacillus fermentum [ATCC 9338] Candida albicans [ATCC 10231]	Orange Serum Broth	10496104
Aerobic, facultative, anaerobic bacteria and fungi	Escherichia coli (E.coli) [ATCC 25922]	Total Count Media with TTC Trypticase Soy Broth (TSB)- Single Strength Trypticase Soy Broth (TSB) - Double Strength	10496113 10496707 10496708
Total Coliform and Escherichia coli	Saccharomyces cerevisiae [ATCC 9763] Escherichia coli (E.coli) [ATCC 25922]	M-Endo Coliform Broth Brilliant Green Bile Broth EC Broth EC Broth with MUG MI Broth MI Agar	10496103 10496710 10496714 10496709 10496192 10496847
Enterococci	Enterococci faecalis [ATCC 19433]	Enterococcus Broth	10496120
Fecal Streptococci	Streptococcus faecalis [ATCC 19433]	KF-Streptococcus Broth	10496125
Lactobacillus, especially in meat	Lactobacillus plantarum [ATCC 8014] Lactobacillus fermentum [ATCC 9338]	MRS Broth	10496112
Pseudomonas aeruginosa	Pseudomonas aeruginosa [ATCC 10145]	Cetrimide Broth Pseudomonas Broth	10496146 10496119
Yeast and Mold	Zygosaccharomyces bailii [ATCC 58445] Saccharomyces cerevisiae [ATCC 9763]	PRY Broth (Preservative Resistant Yeast) Wallerstein Nutrient Broth (WLN)	10496106 10496108

## Pharmaceuticals, Raw Materials, Cosmetics

Quality control systems for raw materials and production systems using water. Typical organisms include Pseudomonads, Escherichia coli, Staphylococci, Streptococci, yeasts and molds.

Selective microorganism	Positive test organism	Media	Product No.
Aerobic, facultative, anaerobic bacteria and fungi	Escherichia coli (E.coli) [ATCC 25922]	Total Count Media with TTC Trypticase Soy Broth (TSB)- Single Strength Trypticase Soy Broth (TSB) - Double Strength	10496113 10496707 10496708
Total Coliform and Escherichia coli	Saccharomyces cerevisiae [ATCC 9763] Escherichia coli (E.coli) [ATCC 25922]	M-Endo Coliform Broth MI Broth MI Agar	10496103 10496192 10496847
Enterococci	Enterococci faecalis [ATCC 19433]	Enterococcus Broth	10496120
Fecal Streptococci	Streptococcus faecalis [ATCC 19433]	KF-Streptococcus Broth	10496125
Pseudomonas aeruginosa	Pseudomonas aeruginosa [ATCC 10145]	Cetrimide Broth Pseudomonas Broth	10496146 10496119
Staphylococci	Staphylococcus aureus [ATCC 25923]	Mannitol Salt Broth	10496121
Yeast and Mold	Zygosaccharomyces bailii [ATCC 58445] Saccharomyces cerevisiae [ATCC 9763]	PRY Broth (Preservative Resistant Yeast) Wallerstein Nutrient Broth (WLN)	10496106 10496108

## Nutrient Liquid Media



2 mL ampouled media

- ◆ Beverage distilled and non distilled

### Features & Benefits

- ◆ Wide range of products satisfies even special customer requirements
- ◆ Optimal media stability, sterility, and reproducibility
- ◆ Less time-consuming, higher productivity
- ◆ Batch-specific quality certificate in each pack

### Liquid Media Descriptions

#### Brilliant Green Bile Broth 2%

Brilliant Green Bile Broth is used to detect coliforms in water, milk and other samples. BGGB contains two inhibitors of both gram-positive and selected gram-negative organisms, namely, oxgall and brilliant green dye. Fermentation is detected by gas production.

#### Cetrimide Broth

Cetrimide Broth is used for selective cultivation of *Pseudomonas aeruginosa*. *Pseudomonas aeruginosa* is characterized by the production of pyocyanin (a blue green, water soluble, non-fluorescent, phenazine pigment) which is stimulated by the inclusion of magnesium chloride and potassium sulfate in the broth. Cetrimide (N-cetyl-NNN-trimethylammonium bromide) is added to inhibit bacteria other than *Pseudomonas aeruginosa*. Its action as a quaternary ammonium cationic detergent causes nitrogen and phosphorous to be released from bacterial cells other than *Pseudomonas aeruginosa*.

#### EC Broth

EC (*Escherichia coli*) Broth is used to detect coliforms and *E. coli*. EC Broth contains casein peptone as a source of nutrients. Lactose provides the carbohydrate fermented by coliform bacteria and *Escherichia coli*. In addition, lactose-positive bacteria metabolize lactose with gas formation. Gram-positive bacteria are inhibited by the mixture of bile salts.

#### EC Broth with MUG

EC Broth with MUG is used to detect *Escherichia coli* in water, milk and food. The presence of fluorescence using a long-wave UV light source confirms the presence of *Escherichia coli* and no further confirmation is required. MUG detects anaerogenic strains, which may not be detected in the conventional procedure. Lactose is a source of energy. Casein peptone provides additional nutrients. The mixture of bile salts is inhibiting for gram-positive bacteria, particularly bacilli and fecal streptococci. The substrate 4-methylumbelliferyl-b-D-glucuronide is hydrolyzed by an enzyme, b-glucuronidase, possessed by most *Escherichia coli* and a few strains of *Salmonella*, *Shigella* and *Yersinia*, to produce a fluorescent end product, 4-methylumbelliferone.

### Liquid Media

Ready-to-use media considerably reduces the preparation time in quality control laboratories and also effectively reduces the risks of cross contamination.

GVS Life Sciences is cooperating closely with quality assurance managers in the industry in the development of its own media and test kits.

This intensive product development has produced a range of products that is being used to monitor production plants and conduct microbiological checks on raw materials through to final product release in laboratories.

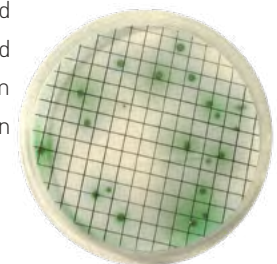
### Typical Applications

#### Microbiological analysis of:

- ◆ Drinking water
- ◆ Surface water
- ◆ Recreational water
- ◆ Purified water



Brilliant Green Bile Broth



Pseudomonas Media: Typical Growth of *Pseudomonas aeruginosa* ATCC 10145



EC-Broth: Vial Left: Control; Vial Right: Broth inoculated with *Escherichia coli* ATCC 25922

## Liquid Media Descriptions

### Enterococcus Broth

Enterococcus Broth is a modified version of the improved media described by Slanetz and Bartley with triphenyltetrazolium chloride (TTC). The membrane filtration method is simple to perform, does not require confirmation and permits a direct count of enterococci in 48 hours.

### Heterotrophic Plate Count (HPC) Broth with or without TTC

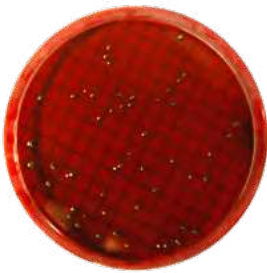
HPC Broth and HPC Broth with TTC Heterotrophic Plate Count (HPC) Broth is used to determine live heterotrophs in drinking water and other media at incubation temperatures of 35°C. All bacteria grow on HPC with indicator media and produce a red color. This is a result of the precipitation of formazan following the reduction of 2,3,5- TTC by bacteria.

### KF-Streptococcus Broth

KF-Streptococcus Broth is selective for the determination of fecal streptococci in polluted surface waters. Maltose and lactose are fermentable carbohydrates, sodium azide is the selective agent and brom cresol purple is the indicator dye.

### Mannitol Salt Broth

Mannitol Salt Broth is used to detect presumptive pathogenic Staphylococci. Because of the amount of peptones and beef extract, Mannitol Salt is a nutrient rich medium. Most bacteria (other than staphylococci) are inhibited by the high concentration of sodium chloride. Organisms capable of fermenting mannitol, e.g., Staphylococcus aureus, cause a pH change in the media. With phenol red as the pH indicator the colonies appear with a yellow coloration.



M-Endo Coliform Broth

### M-Endo Coliform Broth

M-endo Broth is used to detect coliform in water samples. M-Endo is a red colored media, which needs to be stored in the dark to prevent discoloration. Gram-positive bacteria are inhibited on this media by the deoxycholate and lauryl sulfate. The addition of ethanol increases the antibacterial nature of the formulation. Lactose fermenting organisms form aldehydes, which react with Schiff's reagent (basic fuchsin and sodium sulfite) to give red colored zones around the colonies. Coliform colonies are therefore red with a characteristic metallic sheen.

### M-FC Broth

M-FC (fecal coliform) Broth allows the development of fecal coliforms at elevated temperatures (44.5°C).

### M-FC with Rosolic Acid

M-FC with Rosolic Acid acts and functions in the same way as M-FC Broth. Rosolic acid inhibits bacterial growth in general, except for fecal coliforms.

### M-Green Yeast and Mold Broth and M-Green Yeast and Mold Agar

M-Green Yeast and Mold Broth is used to detect yeast and mold in beverages and food. M-Green Yeast and Mold Broth is an improved modification of the liquid media. The addition of bromocresol green, which diffuses into fungal colonies as an alkaline reaction, allows them to be easily identified. Metabolic by-products from the developing colonies diffuse into the surrounding medium, further reducing the pH which aids in the inhibition of bacterial growth, but also produces an acid reaction that causes residual bromocresol green to change to yellow.



M-Green Yeast and Mold Broth:  
Typical Growth of Candida  
Albicans ATCC10231 on a Black  
Membrane

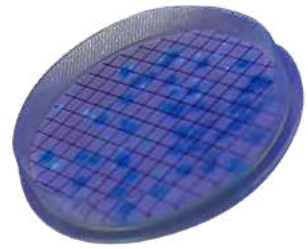
### M-Green Select Broth

M-Green Select Broth was developed to improve efficiency of detection and enumeration of fungi in sugar based drinks using the membrane filtration method. This medium has a low pH, which inhibits bacterial growth. The addition of chloramphenicol further inhibits the growth of bacteria to allow for the development and enumeration of yeast and mold.

# Liquid Media

## MI Broth and MI Agar

MI Broth detects the presence of coliform bacteria by the production of  $\beta$ -galactosidase, which cleaves the substrate MUGal to produce 4-methylumbelliferone, which fluoresces on exposure to UV light. Non-coliforms do not produce this enzyme and therefore do not fluoresce on the medium. *Escherichia coli* is detected by the compound IBDG. The  $\beta$ -glucuronidase produced by *Escherichia coli* cleaves the substrate to produce a blue indigo color in the colonies. As *Escherichia coli* is also a total coliform, and also produces  $\beta$ -galactosidase, it will also fluoresce. The antibiotic cefsulodin is present to inhibit the growth of gram-positive bacteria and some non-coliform gram-negative bacteria that can cause false positive reactions.



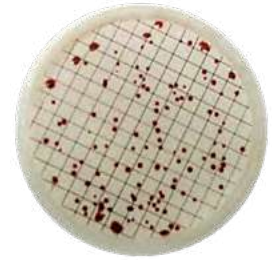
MI-Media: Pure Culture of *Escherichia coli* ATCC 25922 with UV Light

## MRS Broth

MRS medium supports luxuriant growth of all lactobacilli, even the slow growing species.

## M-TGE Total Count Media

All bacteria develop on TGE media and produce a range of different colored and sized colonies.



Total Count Media with Indicator. *Escherichia coli* ATCC 25922 and *Staphylococcus aureus* ATCC 25923 can be easily detected according to their red to pink colonies

## Orange Serum Media

Orange Serum Broth is used to detect aciduric microorganisms. Organisms known to grow in single strength and concentrated juices are lactic acid and acetic acid bacteria and yeast. Lactobacilli, *Leuconostoc* and yeast have all been identified as spoilage organisms by numerous authors. Orange serum at pH 5.4 to 5.6 has been reported to yield maximum counts of all types of spoilage organisms in mixed cultures and in single culture comparison tests.

## PRY Broth

Preservative Resistant Yeast Broth is a low pH selective medium for the detection of spoilage microorganism in beverages and water.

## Pseudomonas Broth

*Pseudomonas aeruginosa* is characterized by the production of pyocyanin (a blue green, water soluble, non-fluorescent, phenazine pigment) which is stimulated by the inclusion of magnesium chloride and potassium sulfate in the broth. Irgasan, an antimicrobial agent, selectively inhibits gram-positive and gram-negative bacteria other than pseudomonads. Glycerol both serves as an energy source and helps in the promotion of pyocyanin.

## Total Count Media with TTC

All bacteria develop on Total Count Media with indicator and produce a red color as a result of the precipitation of formazan following the reduction of 2,3,5-TTC by bacteria.

## Trypticase Soy Broth – Single Strength

General purpose medium used in qualitative procedures for the cultivation of fastidious and non-fastidious microorganisms. Trypticase Soy Broth – Single Strength complies with the demands of the DIN Norm 10167 for the detection of *Escherichia coli* serotype O157:H7 in foods and FDA-BAM for the isolation of enterohemorrhagic *Escherichia coli* (EHEC). In addition the media conforms to the formula of the US Pharmacopoeia.

## Trypticase Soy Broth – Double Strength

TSB is a medium that will support the growth of a wide variety of microorganisms including aerobic, facultative, and anaerobic bacteria and fungi.

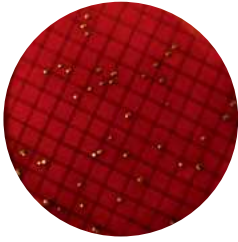
## Wallerstein Nutrient Broth (WL) and WL Differential Broth (WLD)

WL Nutrient Broth is for the cultivation and enumeration of yeast and WL Differential Broth is for determination of bacterial count. Use of the medium at pH 5.5 and incubation at 25°C will give reliable counts for brewer's yeast. Adjustment of the pH to 6.5 and incubation at 30°C allows for the selective growth of baker's and distiller's yeast.

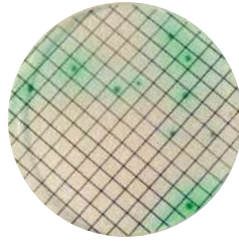


Trypticase Soy Broth Double Strength (not inoculated)

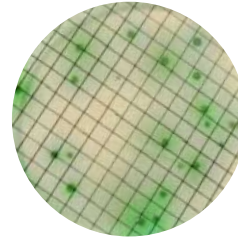
# Liquid Media Selection Guide



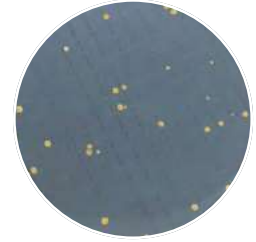
M-Endo Coliform Broth  
Cat. No. 10 496 103  
Coliform bacteria  
*E. coli* ATCC 25922,  
*E. aerogenes* ATCC 13048,  
*P. aeruginosa* ATCC 10145



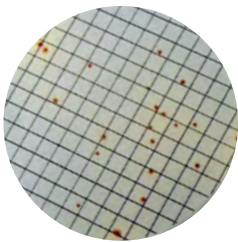
Cetrimide Broth  
Cat. No. 10 496 146  
*Pseudomonas aeruginosa*  
*P. aeruginosa* ATCC 10145



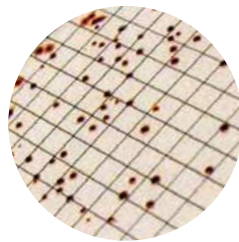
Pseudomonas Broth  
Cat. No. 10 496 119  
*Pseudomonas*  
*P. aeruginosa* ATCC 10145,  
*P. aeruginosa* ATCC 27853



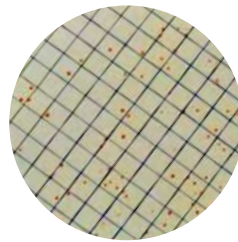
PRY Broth  
Cat. No. 10 496 106  
PRY  
*Z. Bailii* ATCC 58445



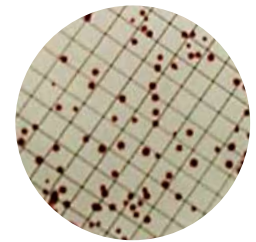
Enterococcus Broth  
Cat. No. 10 496 120  
Enterococci  
*E. faecalis* ATCC 19433



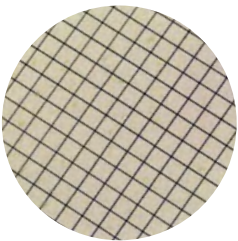
HPC Broth with TTC  
Cat. No. 10 496 151  
Heterotrophic Plate Count  
*E. coli* ATCC 25922, *E. faecalis*  
ATCC 29212, *S. aureus* ATCC 25923



KF-Streptococcus Broth  
Cat. No. 10 496 125  
Fecal streptococci  
*E. faecalis* ATCC 29212,  
*E. faecalis* ATCC 19433



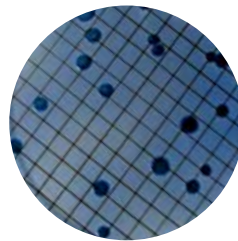
Total Count Media with TTC  
Cat. No. 10 496 113  
All aerobic bacteria  
*E. coli* ATCC 25922, *S. aureus* ATCC 25923,  
*P. aeruginosa* ATCC 10145,  
*E. faecalis* ATCC 29212



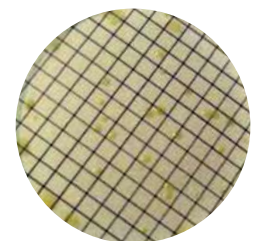
Mannitol Salt Broth  
Cat. No. 10 496 121  
Staphylococci  
*S. aureus* ATCC 25923,  
*S. epidermidis* ATCC 12228



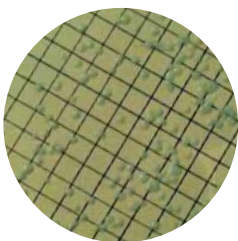
Wallerstein Nutrient Broth  
Cat. No. 10 496 108  
*Saccharomyces cerevisiae*  
*E. coli* ATCC 25922,  
*L. fermentum* ATCC 9338,  
*S. cerevisiae* ATCC 9763



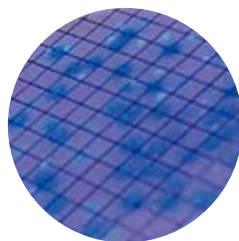
M-FC Broth/M-FC Broth  
with Rosolic Acid Cat.  
No. 10 496 124/114 Fecal coliforms  
*E. coli* ATCC 25922,  
*E. aerogenes* ATCC 13048



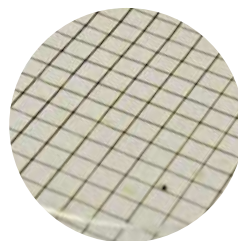
M-TGE Total Count Media  
Cat. No. 10 496 102  
All aerobic bacteria  
*E. coli* ATCC 25922,  
*S. aureus* ATCC 25923



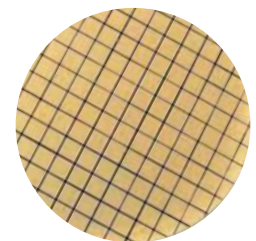
M-Green Yeast and Mold  
Cat. No. 10 496 101  
Yeast and Mold  
*C. albicans* ATCC 10231,  
*S. cerevisiae* ATCC 9763



MI Broth and MI Agar  
Cat. No. 10 496 192/847  
Coliform bacteria and *Escherichia coli*  
*E. coli* ATCC 25922,  
*E. aerogenes* ATCC 13048



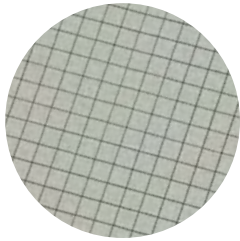
MRS Broth  
Cat. No. 10 496 112  
Lactobacilli  
*L. plantarum* ATCC 8014



Orange Serum Media  
Cat. No. 10 496 104 Various  
*L. acidophilus* ATCC 314,  
*S. cerevisiae* ATCC 9763



# Liquid Media Selection Guide



Wallerstein Differential Broth  
Cat. No. 10 496 109  
Lactobacillus plantarum  
*E. coli* ATCC 25922,  
*L. fermentum* ATCC 9338,  
*S. cerevisiae* ATCC 9763



Trypticase Soy Broth  
Single Strength  
Cat. No. 10 496 707  
*B. subtilis* ATCC 6633,  
*C. albicans* ATCC 10231,  
*E. coli* ATCC 25922,  
*S. aureus* ATCC 25923



Trypticase Soy Broth  
Double Strength  
Cat. No. 10 496 708  
*B. subtilis* ATCC 6633,  
*C. albicans* ATCC 10231,  
*E. coli* ATCC 25922,  
*S. aureus* ATCC 25923



Brilliant Green Bile Broth 2%  
Cat. No. 10 496 710  
Coliform bacteria  
*E. coli* ATCC 25922,  
*E. aerogenes* ATCC 13048



EC Broth  
Cat. No. 10 496 714  
Coliform bacteria  
*E. coli* ATCC 25922,  
*E. aerogenes* ATCC 13048



EC Broth with MUG  
Cat. No. 10 496 709  
*Escherichia coli*  
*E. coli* ATCC 25922



Hygiene SwabCheck  
Cat. No. 10 498 407



Coliform SwabCheck  
Cat. No. 10 498 406



Listeria SwabCheck  
Cat. No. 10 498 408



Buffer Swabs  
Cat. No. 10 498 305/10 498 306



Neutralizing Buffer Swabs  
Cat. No. 10 498 303/10 498 304



## Legend



Water



Dairy



Beverages



Pharmaceutical



Food



Cosmetics



Wastewater

# Liquid Media

## 2 mL Ampoules Ordering information

Product Code	Description	Packaging
10496146	Cetrimide Broth	50/pk
10496120	Enterococcus Broth	50/pk
10496164	Heterotrophic Plate Count (HPC) Broth with TTC	50/pk
10496151	HPC Broth	50/pk
10496125	KF-Streptococcus Broth	50/pk
10496121	Mannitol Salt Broth	50/pk
10496103	M-Endo Coliform Broth	50/pk
10496124	M-FC media	50/pk
10496114	M-FC Broth with rosolic acid	50/pk
10496116	M-Green Select Broth	50/pk
10496101	M-Green Yeast and Mold Broth	50/pk
10496192	MI-Broth Media	50/pk
10496112	MRS Broth	50/pk
10496102	M-TGE Broth	50/pk
10496104	Orange Serum Broth	50/pk
10496106	PRY Broth	50/pk
10496119	Pseudomonas Broth	50/pk
10496113	Total Count Broth with TTC	50/pk
10496108	Wallerstein Broth	50/pk
10496109	Wallerstein Differential Broth	50/pk

## 9 mL Vials Ordering information

Product Code	Description	Packaging
10496710	Brilliant Green Bile Bottled Broth, with Durham tubes	20/pk
10496714	EC Bottled Broth, with Durham tubes	20/pk
10496709	EC with MUG, Bottled Broth	20/pk

## Bottled Media Ordering information

Product Code	Description	Packaging
10496851	MI Media, Bottled Broth, 50 mL,	1/pk
10496847	MI Media, Bottled Agar, 50 mL	1/pk
10496705	M-Green Yeast and Mold Bottled Agar, 100 mL	1/pk
10496707	Trypticase Soy Broth (TSB) Single strength, Bottled Broth, 100 mL	1/pk
10496708	Trypticase Soy Broth (TSB) Double strength, Bottled Broth, 100 mL	1/pk
10496744	ColiCheck with MUG, Presence-Absence (P-A) Test Kit with Sample Bottles	30/pk

## SwabCheck™



### SwabCheck: how to use

Open the sterile pack, remove the swab and wipe it over an area of about 10 x 10 cm. Then twist off the cap of the medium tube and insert the swab so that the cap fits tightly. Label the sample tube and incubate at the appropriate temperature.

A change in color indicates the presence of the microorganism in question. The quicker the color change occurs, the higher the bioburden. If no color change has been observed after the maximum incubation period has elapsed, then the corresponding microorganism is not present. GVS Life Sciences offers SwabCheck in packs of 25 pieces. With a shelf-life of 12 months.

### Neutralizing Buffer Swabs

Neutralizing buffer swabs are used in the monitoring of surfaces for total bacterial count. Neutralizing buffer inactivates the bactericidal and bacteriostatic effects of chlorine and quaternary ammonium detergents. Without exhibiting toxic effects on microorganisms. This permits the transfer of swabbed organisms to the laboratory without loss in viability. Neutralizing buffer is not designed to culture and enumerate microorganisms.

### Buffer Swabs

Buffer Swabs are used for the collection of surface contamination from flat or convoluted surfaces prior to transport to a laboratory for culture and enumeration. Buffer swabs contain no bacteriostatic or bactericidal compounds and cannot suppress the action of detergents.

### SwabCheck

SwabCheck is used as an indication of hygiene on contact surfaces. SwabCheck changes color from purple to yellow. The color change is based on acid reaction with the indicator. The more rapid the color change, the higher the level of bacteria in the sample. SwabCheck is useful in determining the sanitation levels of preparation surfaces, filling ports, and processing areas in beverage and food processing plants, dairies, restaurants, and healthcare facilities.

### Coliform SwabCheck

Escherichia coli and coliforms are used traditionally as indicator organisms for fecal contamination in water and other environmental samples. Detection of these organisms usually points to poor hygiene at some stage in the production process or pollution of water at source. The presence of coliforms is indicated by a color change from brown to yellow. The more rapid the color change the higher the level of coliform bacteria.

### Hygiene SwabCheck

Easy to use: The Hygiene SwabCheck shows an obvious color change from red to yellow. The time taken for this change is an indication of the level of contamination. This should be used in conjunction with known specification levels of your process/product. Rapid screening hygiene test is a same day test that will detect gross bacterial and fungal contamination of work surfaces, equipment machinery or other sampling sites.

# swabcheck

### The SwabCheck principle

The surface is wiped with a cellulose swab and any bacteria collected are transferred via the swab into a tube containing a special medium with an indicator dye, which is then incubated. A single bacterium is sufficient to cause a color change. This means that SwabCheck is about 1000 times more sensitive than the conventional ATP method. This accuracy is particularly important in the food industry. With this simple method, it is possible to identify microorganisms such as *Listeria monocytogenes*, which must not be present in any concentration in food and beverages.

### Features & Benefits:

The right test for each type of contamination

- Qualitative and semi-quantitative hygiene control
- Sterile packed and ready-for-use
- Easy to handle
- Rapid results
- Long shelf-life

Total Count Swab Kit



Coliform SwabCheck



## Listeria SwabCheck

Listeria Isolation SwabCheck is designed to be used alongside traditional selective methods to improve the quality system and minimize the risk of Listeria contamination. This simple to use diagnostic test can be applied anywhere in the environment and on foodstuffs where the presence of Listeria species would be critical.

Listeria sp and specifically Listeria monocytogenes are rapidly becoming the most important pathogen in the food industry; regulatory bodies from around the world are insisting that all food products are Listeria free. Listeria Isolation SwabCheck works on an enhanced Esculin media formulation. The hydrolysis of esculin gives a distinctive black/brown precipitate. Inhibitors and antibiotics are present in the media, which will inhibit the growth of non-Listeria species.

## SwabCheck Escherichia coli

SwabCheck Escherichia coli is used for the detection of Escherichia coli on surfaces. The presence of fluorescence using a longwave UV light source confirms the presence of Escherichia coli and any further confirmation is not required. MUG detects anaerogenic strain that may not be detected in the conventional procedure. Lactose is a source of energy. Casein peptone provides additional nutrients. The mixture of bile salts is inhibiting for gram-positive bacteria, particularly bacilli and fecal streptococci. The substrate 4-methylumbelliferyl-b-D-glucuronide is hydrolyzed by an enzyme, b-glucuronidase, possessed by most Escherichia coli and a few strains of Salmonella, Shigella, and Yersinia, to produce a fluorescent end product, 4-methylumbelliferone. The presence of Escherichia coli is detected by the appearance of fluorescence throughout the tube.

## Total Count Swab Kit

Total Count Swab Kit is used for the non-selective development and enumeration of all aerobic bacteria on surfaces in accordance with Hazard Analysis and Critical Control Points (HACCP). The kit includes the swabs and culture medium, packaged with a membrane device, providing a quantitative result. All bacteria develop on TGE media and produce a range of different colored and sized colonies. It is not possible using TGE to presumptively identify any bacteria. Identification can only be undertaken using traditional microbiology techniques following initial colony development.

## Yeast and Mold Swab Kit

Yeast and Mold Swab Kit is used for the enumeration of yeast and molds on surfaces in accordance with HACCP. The kit includes the swabs and culture medium, packaged with a membrane device, providing a quantitative result. M-Green yeast and mold is an improved modification of the liquid medium, and was developed to improve efficiency of detection and enumeration of fungi in sugar based drinks using the membrane filtration method. This medium has a low pH, which inhibits bacterial growth. The addition of bromocresol green, which diffuses into fungal colonies as an alkaline reaction, allows them to be easily identified. Metabolic by-products from the developing colonies diffuse into the surrounding medium, further reducing the pH that aids in the inhibition of bacterial growth, but also produces an acid reaction that causes residual bromocresol green to change to yellow. Green opaque colonies against a yellow background are indicative of the growth of yeasts. Mold colonies are green and filamentous.

## Polywipe Sponge

Polywipe Sponge is used for the recovery of microorganisms from a surface. Polywipe is a blue sponge that is premoistened with neutralizing buffer to neutralize the effects of surface disinfectants. The sponge material is selected to be free of the preservatives found in commercially available sponges, which can inhibit microorganism growth. Polywipe sponges are biocide free and tested for zero toxicity to microorganisms. Each sponge is individually wrapped in a peel pouch and gamma irradiated to ensure sterility.

Hygiene SwabCheck



Listeria SwabCheck



Yeast and Mold Swab Kit



Polywipe Sponge



## Buffers Ordering information

Product Code	Description	Volume	Quantity
10498303	Neutralizing Buffer Swabs	4 mL	125/pk
10498304	Neutralizing Buffer Swabs	4 mL	500/pk
10498305	Buffer Swabs	4 mL	125/pk
10498306	Buffer Swabs	4 mL	500/pk

## SwabCheck Ordering information

Product Code	Description	Volume	Quantity
10498404	SwabCheck	4 mL/tube	125/pk
10498402	SwabCheck Escherichia coli	4 mL/tube	125/pk
10498315	Total Count Swab Kit	2.8 mL/tube and membrane device	30/pk
10498316	Yeast and Mold Swab Kit	2.8 mL/tube and membrane device	30/pk
10498406	Coliform SwabCheck	Individually wrapped package	25/pk
10498407	Hygiene SwabCheck	Individually wrapped package	25/pk
10498408	Listeria SwabCheck	Individually wrapped package	25/pk
10498521	Polywipe Sponge	Individually wrapped pre-moistened sponge	50/pk

## Surface Sampling Sponge Swabs

The Surface Sampling Sponge Swab is a professional tool for surface microorganisms, residues and contaminants sampling. Each unit contains a pre-moistened sponge-stick in a sterile bag. It is widely used in food processing, pharmaceutical manufacturing, hygiene monitoring and laboratory testing, enabling efficient surface sampling and reliable data for quality and safety control.

### Features

- Long handle reduces contamination risk; durable, leak-proof sampling bag.
- Compact sterile packaging with pre-moistened sponge, ready to use.
- Lightweight for easy handling and high sampling efficiency.



1 Take out the sponge swab. Collect the sample according to the sampling protocol.



2 After sampling, insert the used sponge swab into the sampling bag.



3 Place the sponge at the bottom of the bag and seal the opening for transport and testing.



4 Attach the sample label to the bag surface and record sampling information.

### Ordering information

Product Code	Product Name	Description	Qty.
SPSWBGPBS001A	Surface Sampling Sponge Swab (PBS)	Contains 10 mL PBS buffer	50 Pcs/Box
SPSWBGPBW002A	Surface Sampling Sponge Swab (BPW)	Contains 10 mL Buffered Peptone Water	50 Pcs/Box
SPSWBGNB003A	Surface Sampling Sponge Swab (Nutrient Broth, NB)	Contains 10 mL Nutrient Broth	50 Pcs/Box
SPSWBGLEB004A	Surface Sampling Sponge Swab (Lethen Broth)	Contains 10 mL Lethen Broth	50 Pcs/Box
SPSWBGDENB005A	Surface Sampling Sponge Swab (D/E Neutralizing Broth)	Contains 10 mL D/E Neutralizing Broth	50 Pcs/Box
SPSWBGSS006A	Surface Sampling Sponge Swab (Saline Solution)	Contains 10 mL 0.85% Saline	50 Pcs/Box
SPSWBGLF007A	Surface Sampling Sponge Swab (Dry)	No liquid	50 Pcs/Box
SPSWBGNEUB008A	Surface Sampling Sponge Swab (Neutralizing Buffer)	Contains 10ml Neutralizing Buffer	50 Pcs/Box

## Collection recovery test data

### Purpose and Basis of Validation:

To ensure that the validation results can truly reflect the microbial capture efficiency under actual production conditions, the surface microbial recovery rate validation was conducted by using the disposable sterile sponge swabs. To collect bacterial liquid on the workbench surface and then release the bacterial liquid.

**Sample Group:** Pipette 1ml of the prepared bacterial suspension and evenly spread it on the 25cm×25cm stainless steel surface. After the bacterial suspension is completely dried (usually air-dried at room temperature in a biosafety cabinet for 30-60 minutes to avoid microbial inactivation due to excessive drying), use a wetted sponge swab to wipe back and forth 4 times in a "Z" shape along the diagonal of the inoculated surface for sampling. Place the sampled sponge swab into the matching wire sampling bag, squeeze 30 times to elute microorganisms, then squeeze repeatedly for 2-3 times to fully collect the liquid. Pipette 1ml of the squeezed sample solution into a sterile Petri dish, with a total of 5 Petri dishes, 1ml per dish.

**Key Conclusion:** The average sampling recovery rate of the disposable sterile sponge swabs *Escherichia coli* ATCC25922 reached 94.3%, indicating that the product has stable and high-efficiency microbial collection capacity, can meet the microbial sampling needs of multiple scenarios such as food contact surfaces, medical device surfaces and environmental object surfaces, and the product performance complies with the application requirements.

**Repeatability:** This validation investigated both repeatability (10 groups of data from the same operator) and reproducibility (data between different operators). The intra-group standard deviations of the two experimenters were both less than 5%, indicating that the method has good repeatability.

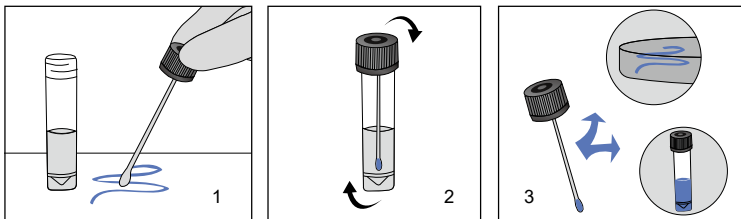
	Series No	Plate 1 CFU/ml	Plate 2 CFU/mL	Plate 3 CFU/mL	Plate 4 CFU/mL	Plate 5 CFU/mL	Average Value CFU/ml	Volume (ml)	Total Bacterial Count	Recovery Rate(%)	Average Recovery Rate(%)	Standard Deviation	Average Recovery Rate(%)
A	Sample Group-1	80	71	80	81	77	77.8	5.0	389.0	95.8	93.6	2.59	
	Sample Group-2	72	69	73	74	74	72.4	5.0	362.0	89.2			
	Sample Group-3	78	83	80	80	70	78.2	5.0	391.0	96.3			
	Sample Group-4	82	74	87	76	77	79.2	5.0	396.0	97.5			
	Sample Group-5	81	72	70	80	76	75.8	5.0	379.0	93.3			
	Sample Group-6	74	71	76	68	78	73.4	5.0	367.0	90.4			
	Sample Group-7	73	80	72	69	78	74.4	5.0	372.0	91.6			
	Sample Group-8	74	80	73	70	75	74.4	5.0	372.0	91.6			
	Sample Group-9	82	82	79	83	73	79.8	5.0	399.0	98.3			
	Sample Group-10	82	71	73	67	79	74.4	5.0	372.0	91.6			
	Control Group	82	85	72	87	80	81.2	5.0	406.0	/	/	/	
	Sample Blank	0	0	0	0	0	/	/	/	/	/	/	94.3
B	Sample Group-1	78	80	79	72	72	76.2	5.0	381.0	99.5	95.1	2.33	
	Sample Group-2	73	76	70	81	73	74.6	5.0	373.0	97.4			
	Sample Group-3	78	75	69	78	81	76.2	5.0	381.0	99.5			
	Sample Group-4	65	75	65	65	77	69.4	5.0	347.0	90.6			
	Sample Group-5	80	70	72	65	76	72.6	5.0	363.0	94.8			
	Sample Group-6	77	75	78	66	68	72.8	5.0	364.0	95			
	Sample Group-7	63	78	77	66	70	70.8	5.0	354.0	92.4			
	Sample Group-8	66	78	74	73	74	73	5.0	365.0	95.3			
	Sample Group-9	78	66	72	65	70	70.2	5.0	351.0	91.6			
	Sample Group-10	73	74	70	77	69	72.6	5.0	363.0	94.8			
	Control Group	73	82	80	72	76	76.6	5.0	383.0	/	/	/	
	Sample Blank	0	0	0	0	0	/	/	/	/	/	/	

## Environmental Surface Collection

Effective sampling of surfaces requires moisture, either already present on the surface to be sampled or via moistened swabs, sponges, wipes, agar surfaces, or membrane filters. GVS provides dilution fluids and rinse fluids include various buffers or general-purpose broth media, for environmental sampling applied in the food, pharmaceutical, biotechnology and cosmetic industries.

Available in 10mL fill volumes, with high-quality foam swab. The swab can be securely attached to the cap and makes a convenient "handle" for great control when sampling.

### Convenient Use



1. Pre-moistening the tip of swab with broth and then collecting sample by rubbing.
2. Returning the swab head to the broth after swabbing each area.
3. Shaking the tube vigorously, then plating the sample into the appropriate media and culturing for analysis.



Note: This product is For Laboratory Use only. It is not intended for use in the diagnosis of disease or other conditions.  
Packing: 50 tubes/rack/inner box, 8x50 tubes/case

### Neutralizing solution

Neutralizing solution is recommended for detection of microorganisms found on dairy and food equipment disinfected with chlorine or quaternary ammonium compounds. The medium usually contains lecithin, polysorbate 80, and sodium thiosulphate, which is used for neutralizing antibacterial or anti-microbial cleansing agents on surfaces in order to paint a clear picture of any bacteria present.

Neutralizing Solution (PBS)

Product Code	Tube	VOL.	Swab
ESCKC2118X1601A	10ml	10ml	1 separate regular foam swab
ESCKC2118X1651A	10ml	10ml	1 regular foam swab attached cap in tube

Neutralizing Solution (Saline Solution)

Product Code	Tube	VOL.	Swab
ESCKC2118X1602A	10ml	10ml	1 separate regular foam swab
ESCKC2118X1652A	10ml	10ml	1 regular foam swab attached cap in tube



### Buffered Peptone Water

Buffered Peptone Water is a pre-enriched nonselective buffered solution. It allows for the repair of damaged cells and facilitates the recovery of target bacteria in samples for detection of salmonella in food and dairy plants.

Product Code	Tube	VOL.	Swab
ESCKC2118X1603A	10ml	10ml	1 separate regular foam swab
ESCKC2118X1653A	10ml	10ml	1 regular foam swab attached cap in tube



## Letheen Broth

Letheen Broth is recommended for use in qualitative procedures for testing quaternary ammonium compounds for antimicrobial activity. It is a growth medium supplied with neutralizing reagent, such as Lecithin neutralizes quaternary ammonium compounds and polysorbate 80 neutralizes phenolic disinfectants, hexachlorophene, and formalin.

Product Code	Tube	VOL.	SWAB
ESCKC2118X1604A	10ml	10ml	1 separate regular foam swab
ESCKC2118X1654A	10ml	10ml	1 regular foam swab attached cap in tube

## Butterfield's Solution

Butterfield's Solution is a liquid medium recommended for use in qualitative procedure as a diluent in microbial limit testing of pharmaceutical products and in food testing. It was developed to provide a standardized medium for the preparation of sample dilutions, which eliminates the variations in pH associated with the use of distilled water.

Product Code	Tube	VOL.	Swab
ESCKC2118X1605A	10ml	10ml	1 separate regular foam swab
ESCKC2118X1655A	10ml	10ml	1 regular foam swab attached cap in tube

## D/E Neutralizing Broth

D/E Neutralizing Broth is a liquid medium recommended for use in qualitative procedures for environmental sampling where neutralization of the chemical is important to determine its bactericidal or bacteriostatic activity. This medium will neutralize a broad spectrum of antiseptic and disinfectant chemicals, including mercurial, iodine and chlorine preparations, quaternary ammonium compounds, phenolics, formaldehyde and glutaraldehyde. Growth is indicated by a color change from purple to yellow, and / or cloudiness.

Product Code	Tube	VOL.	Swab
ESCKC2118X1606A	10ml	10ml	1 separate regular foam swab
ESCKC2118X1656A	10ml	10ml	1 regular foam swab attached cap in tube

## Neutralizing Buffered Peptone Water

Neutralizing Buffered Peptone Water is recommended for use in the recovery of injured Salmonella species from industrial samples prior to selective enrichment and isolation, such as poultry rinses and food samples. It contains neutralizing agents to reduce the inhibitory effects of carryover from antimicrobial interventions.

Product Code	Tube	VOL.	Swab
ESCKC2118X1607A	10ml	10ml	1 separate regular foam swab
ESCKC2118X1657A	10ml	10ml	1 regular foam swab attached cap in tube



## Drip-type Surface Sampling Kits

Drip-type surface sampling kits are mainly used for surface sampling in food, pharmaceuticals, public health, catering, beverage factories, etc. When combined with culture media, it can detect total bacteria count, coliforms, Staphylococcus aureus, Listeria, and other items.

### Features

- Instant and convenient sampling, easy to transport
- High-quality artificial fiber cotton, with a sample release rate of 95%
- Large swab head area, allowing multi-angle surface swabbing to improve sampling efficiency



### Flowchart 1



1 Fix the area to be tested with a sterile sampling template.



2 Place the used swab into the sampling tube and label for testing.



3 Draw the sample liquid and add it to the testing plate or swab directly onto the testing plate, then incubate.

### Flowchart 2



1 Fix the area to be tested with a sterile sampling template.



2 Place the used swab into the sampling tube and label for testing.



3 Draw the sample liquid and add it to the testing plate or swab directly onto the testing plate, then incubate.

### Ordering information

Product Code	Description	Qty.
ESCKBGBIS001A	10 mL Tube containing 10 mL of preservation solution (PBS), with built-in rayon swab*1	10 Pcs/Box
ESCKBGBIS002A	10 mL Tube containing 10 mL of preservation solution (0.85% saline solution), with built-in rayon swab*1	10 Pcs/Box
ESCKBGBIS003A	10 mL Tube containing 10 mL of preservation solution (Buffered Peptone Water), with built-in rayon swab*1	10 Pcs/Box
ESCKBGBIS004A	10 mL Tube containing 10 mL of preservation solution (0.85% saline solution, containing neutralizer), with built-in rayon swab*1	10 Pcs/Box
ESCKBGF0PL02A	Sterile Sampling Template, size:5x5 cm, for 25 cm <sup>2</sup> surface sampling	100 Pcs/ Pk

## Dilution Bottles



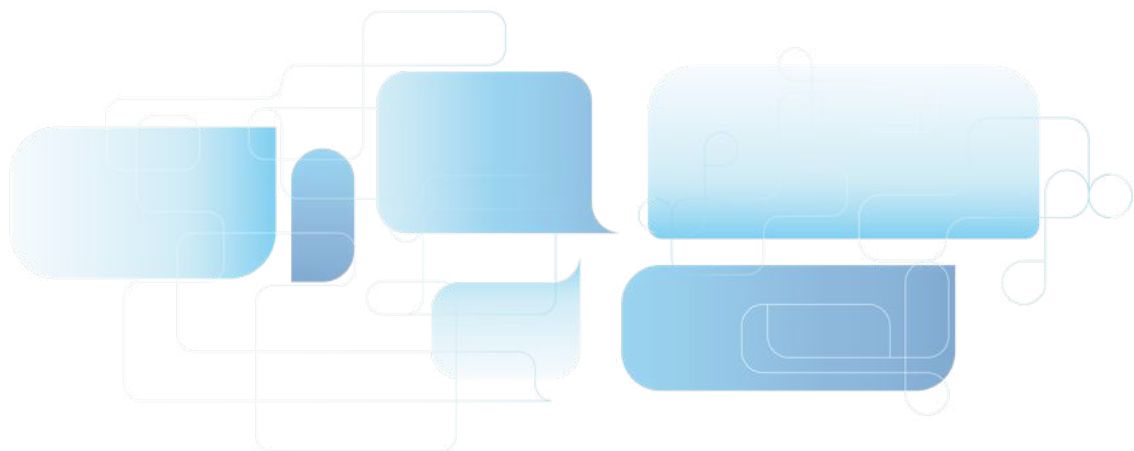
Prefilled sterile dilution bottles are designed for sample dilution of water, dairy products, foods, and pharmaceuticals prior to microbiological testing. Final pH for all solutions is 7.2 pH  $\pm$ 0.2 pH at 25°C. They come in an easy open, flip-top, plastic container with a tamper-evident seal.

Butterfield's Phosphate Buffer contains monobasic potassium phosphate and is used extensively in the food, dairy, and pharmaceutical industries. Offered in 90 ml and 99 ml volumes for easy 1:10 and 1:100 dilutions. It is recommended as a general diluent in laboratory procedures by the Federal Drug Administrations and in the Bacteriological Analytical Manual. This product is prepared according to Standard Methods for the Examination of Water and Wastewater for use in water testing.

Phosphate Buffer with magnesium chloride is used as the diluents for the preparation of dilutions in plate counts in the dairy and food industries. It is recommended by APHA for the recovery of injured microorganisms from dairy and food samples. Contains deionized water, monopotassium phosphate, and magnesium chloride.

### Ordering information

Product Code	Description	Volume	Quantity
10498503	Dilution Bottle, Butterfield's Buffer	99 mL	72/pk
10498504	Dilution Bottle, Butterfield's Buffer	90 mL	72/pk
10498505	Dilution Bottle, Phosphate Buffer Magnesium Chloride	99 mL	72/pk



# Analytical Funnels

GVS microbiological monitors and analytical funnels provide a complete system solution for liquid sample preparation. Each single-use, pre-sterilized filtering unit consists of a measured filter funnel, base, pad, membrane, removable lid and plug. This all-in-one system easily converts from the 100 mL filtration unit to a petri dish, which can be labeled and incubated for culturing. The GVS funnels meet the standard method requirements for a disposable device.

Each sterile analytical funnel includes a removable NC membrane.

**Analytical funnels are ready-to-use 100 ml filtration units with membrane and culturing devices.**

After filtration the membrane of the analytical funnel can be used for a wide range of qualitative and quantitative biological analysis.



Step 1



Step 2



Step 3



Step 4

## Workflow

1. Sample filtration
2. Remove the upper part from the base
3. Put the base on the membrane lifting device
4. Separate the membrane from the pad and transfer the membrane into a petri dish with a sterile pad

## Advantages

### ◆ Saves up to 50% in time

- No flaming
- Ready-to-use
- Presterilized

### ◆ Safety at work

- No flaming
- Minimizes the risk of cross-contamination

### ◆ Easy Handling

- Ready-to-use filtration unit
- Easy release of membrane

## Ordering information

Product Code	Description	Qty.
10497507	Funnel, Nitrocellulose, White/Black Grid Sterile 0.2 µm	50/pk
10497510	Funnel, Nitrocellulose, White/Black Grid Sterile 0.2 µm, individually packaged	50/pk
10497504	Funnel, Nitrocellulose, White/Black Grid Sterile 0.45 µm	50/pk
10497506	Funnel, Nitrocellulose, White/Black Grid Sterile 0.45 µm, individually packaged	50/pk
10497508	Funnel, Nitrocellulose, Black/White Grid Sterile 0.45 µm	50/pk
10497509	Funnel, Nitrocellulose, Black/White Grid Sterile 0.45 µm, individually packaged	50/pk

# Microbiological Monitors

GVS microbiological monitors and analytical funnels provide a complete system solution for liquid sample preparation. Each single-use, pre-sterilized filtering unit consists of a measured filter funnel, base, pad, membrane, removable lid and plug. This all-in-one system easily converts from the 100 mL filtration unit to a petri dish, which can be labeled and incubated for culturing. The GVS funnels meet the standard method requirements for a disposable device.

Each sterile monitor includes a NC membrane fixed and welded to the dish.

**Monitors are single use, pre-sterilized filtering units with welded fixed membranes and culturing devices.**

Microbiological Monitors are ideal for monitoring contaminants in liquid samples from raw materials to finished products. After the filtration is complete, 2 ml of microbiological media is added and the unit is converted into a petri dish for culturing the contaminants collected.



Step 1



Step 2



Step 3



Step 4

## Workflow

1. Sample filtration
2. Remove the funnel
3. Add 2 ml of microbiological media
4. Replace the lid and incubate

## Advantages

- ◆ **Saves up to 70% in time**
  - No flaming
  - Ready-to-use
  - Presterilized
- ◆ **Safety at work**
  - No flaming
  - Minimizes the risk of cross-contamination
- ◆ **Easy Handling**
  - Ready-to-use filtration unit

## Ordering information

Product Code		Description	Qty.
47 mm	56 mm		
10497511	10497603	Monitor, Nitrocellulose, 0.2 µm, white/black grid, sterile	50/pk
10497500	10497600	Monitor, Nitrocellulose, 0.45 µm, white/black grid, sterile	50/pk
10497501	-	Monitor, Nitrocellulose, 0.45 µm, white/black grid, sterile, individually packaged	50/pk
10497502	10497601	Monitor, Nitrocellulose 0.45 µm, black/white grid, sterile	50/pk
10497503	10497602	Monitor, Nitrocellulose, 0.8 µm, black/white grid, sterile	50/pk

## 47 mm Filter Holder - Gravi-Seal™



The durable and break-resistant polysulfone (PS) unit is autoclavable and chemically resistant for use in cell culturing and microbiological applications and filtering.

The unit includes graduated up to 350 mL with 50 mL intervals.

Each unit is supplied with a #8 rubber stopper to allow use with standard 1L filter flasks or vacuum systems such as the GVS 3- or 6- place Manifold.

### Features & Benefits

- ◆ Durable - break resistant, no extra parts to break or wear out
- ◆ Uses a 47 mm depth filter disc
- ◆ One-handed operation
- ◆ Only two parts
- ◆ No clamps, wheel locks, or magnets to wear out
- ◆ Solid, stable and easy to use

### Typical Applications

- ◆ Filtering liquids for sterility
- ◆ Particle removal
- ◆ General filtration
- ◆ Autoclavable

The GVS polysulfone 47 mm autoclavable filter holder combines The Gravi-Seal filter holder uses a unique gravity held design that allows for one-handed operation with no danger of filter by-pass or sample leakage even when using depth filters.

The filter holder combines the key features and benefits needed in one simple unit, making it a tremendous value. The funnel includes only two components with no required clamps or locking devices to manipulate.

### Ordering information

Product Code	Description	Quantity
1213865	Gravi-Seal PS Analytical Filter Holder (complete unit): 47 mm	1/pk
1214124	Gravi-Seal PS Analytical Filter Holder (complete unit): 47 mm	3/pk
1213883	Gravi-Seal PS Analytical Filter Holder, Base Only	1/pk
1213882	Gravi-Seal PS Analytical Filter Holder, Funnel Only	1/pk

## Multi-Position Filtration Manifold



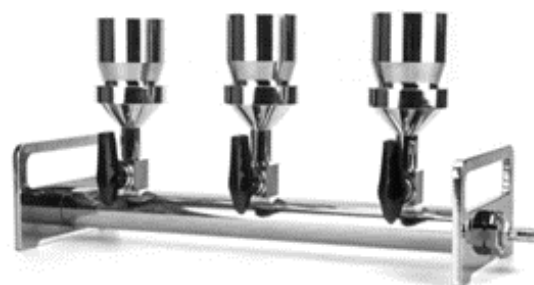
- Different sizes: 3 and 6 places
- The spin-lock design: The manifold uses a spin-lock connection which facilitates fast and stable installation without clamps.
- It can be easily dismantled for the cleaning operations or to check each part.
- The assembling is even possible according to user's needs, choosing among various uniform type, different type or mixed form type columns
- The base structural materials is in satin Stainless Steel with sides handles in anodized aluminium
- One side is fitted with hose-barb for 2 different diameters of vacuum hoses  $\varnothing$  8 and 12 mm, the opposite side is fitted with a stopper.
- Hose-barb and stopper are interchangeable to facilitate the proximity to the vacuum source
- Each part is easily disassembled, inspectable, autoclavable at 121°C for 30 minutes, washable, sanitizable or sterilizable

### Ordering information

Product Code	Description
MANIFW16711023A	3-Branch Stainless Steel Manifold, for Gravi-Seal™ or other devices with Rubber Stopper
MANIFW16711026A	6-Banch Stainless Steel Manifold, for Gravi-Seal™ or other devices with Rubber Stopper
MANIFW320001A	Column/Filter Cup Support, suitable for Gravi-Seal™

## Stainless steel Manifold

- Stainless Steel 500 ml, graduated 250 and 500 ml
- Stainless Steel 300ml, graduated every 50 ml
- Stainless Steel 100 ml, graduated at 50 ml



### Ordering information

Product Code	Description
MANIFW16710323A	3-Branch Stainless Steel Manifold
MANIFW16710324A	3-Branch Stainless Steel Manifold incl. 3 x 100 ml Stainless Steel Filter Cups
MANIFW16710123A	3-Branch Stainless Steel Manifold incl. 3 x 300 ml Stainless Steel Filter Cups
MANIFW16710124A	3-Branch Stainless Steel Manifold incl. 3 x 500 ml Stainless Steel Filter Cups
MANIFW16710326A	6-Branch Stainless Steel Manifold
MANIFW16710327A	6-Branch Stainless Steel Manifold incl. 6 x 100 ml Stainless Steel Filter Cups
MANIFW16710126A	6-Branch Stainless Steel Manifold incl 6 x 300 ml Stainless Steel Filter Cups
MANIFW16710127A	6-Branch Stainless Steel Manifold incl 6 x 500 ml Stainless Steel Filter Cups
MANIFW330005A	Column/Filter Cup Support, suitable for Stainless Steel Funnel

## Stainless Steel Funnel Lid



### Ordering information

Product Number	Description
SSFL16710311A	100 mL Stainless Steel Funnel Lid, suitable for 100 mL Stainless Steel Filter Cup (Cylinder Type)
SSFL16710313A	300 mL Stainless Steel Funnel Lid, suitable for 300 mL Stainless Steel Filter Cup (Cylinder Type)
SSFL16710315A	500 mL Stainless Steel Funnel Lid, suitable for 500 mL Stainless Steel Filter Cup (Cylinder Type)

## Manifold for Speed Pack or 1+Pac and funnels

- This mushroom shaped column with polished inner part is supplied with a membrane support disc in sintered SS Ø 40 mm removable with a finger



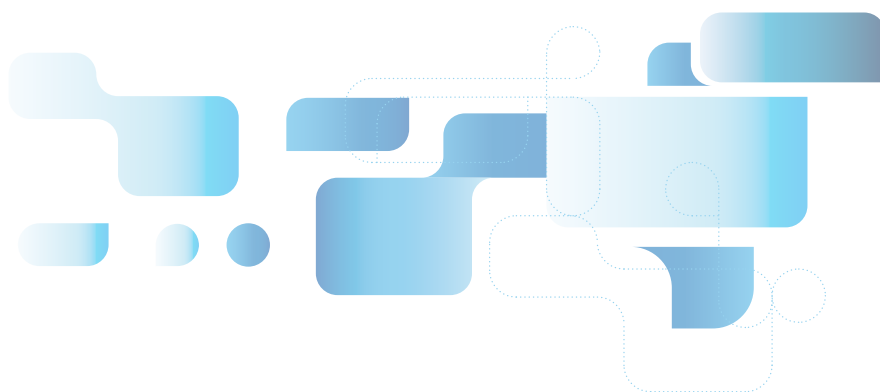
## PP disposable funnels for separated membrane

- PP funnels 100 and 200 capacity, graduated
- In packs of 100 pieces divided into 10 sterile boxes of 10 pieces
- Disposable type, easy to use



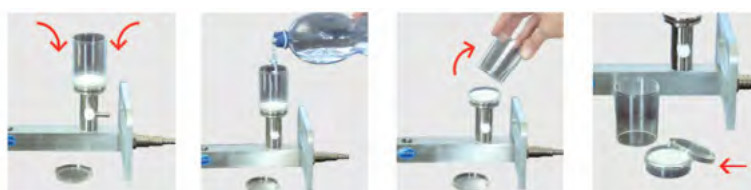
### Ordering information

Product Code	Description
MANIFW16711088A	3-Branch Stainless Steel Manifold
MANIFW16711089A	6-Banch Stainless Steel Manifold
FUNNELA100SR	PP Funnel 100 ml sterile for Speed-Pack - 150pcs
FUNNELA250SR	PP Funnel 250 ml sterile for Speed-Pack - 150 pcs
MANIFW16710323DZ3A	Column/Filter Cup Support for GVS Funnel with Speedpack



## Manifold for Analytical Funnel and Monitors

- On this mushroom shaped column are mounted graduated filtration devices as GVS Analytical Funnel and Microbiologic Monitor, with inner Ø 46,5.
- Devices are mounted simply by a light finger pressure
- Analytical Funnel and Microbiologic Monitor
- Pouring the sample
- Removing the cylinder
- Petri ready for incubation



### Ordering information

Product Code	Description
MANIFW16700323A	3-Branch Stainless Steel Manifold
MANIFW16700326A	6-Branch Stainless Steel Manifold
MANIFW16711023X01A	Column/Filter Cup Support of GVS Analytical Funnel and Monitors

## PP/PC Waste Bottle

Product Number	WAB016720031A	WAB016720032A	WAB016720033A
Bottle	PC	PC	PC
Bottle Cover	PC	PC	PC
Spill-Proof Buoy	PP	PP	PP
Capacity (mL)	1000	2000	3000
Outlet (mm)	8	8	8
Spill-Proof Buoy	Yes	Yes	Yes



WAB016720031A



WAB016720032A



WAB016720033A

## PC Waste Bottle

Description	Material		
Product Number	WAB016712034A		
Capacity (mL)	4000	Bottle	PC
Outlet (mm)	8	Bottle Lid	ABS
Spill-Proof Buoy	Yes	Float Switch	PP
Autoclavability(121°C)	Yes		

## Stand for Waste Bottle

Product Number	Description
WAB0167200391A	Waste Bottle Clamp for 1L waste bottle
WAB0167200392A	Waste Bottle Clamp for 2L waste bottle
WAB0167200393A	Waste Bottle Clamp for 3L waste bottle
WAB0167200394A	Waste Bottle Clamp for 4L waste bottle

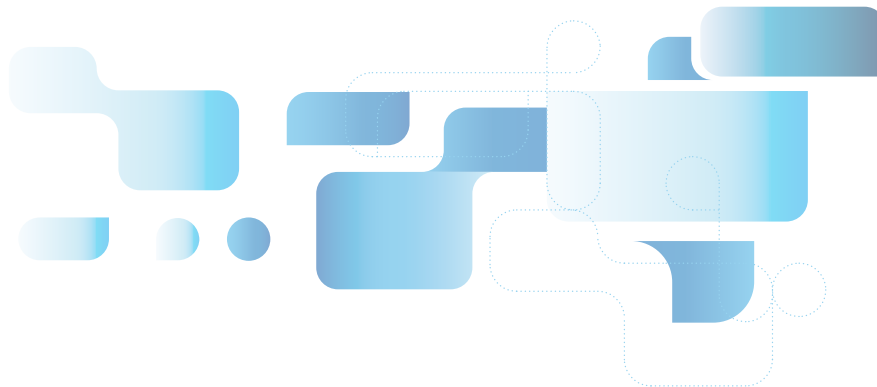


## Silicon Tubing

Product Number	Outer Diameter (mm)	Inner Diameter (mm)	Thickness (mm)	Length (mm)
SITU16802001A	12	6	3	1
SITU16802101A	14	8	3	1
SITU16802201A	16	10	3	1



Product Number	Outer Diameter (mm)	Inner Diameter (mm)	Thickness (mm)	Length (mm)
SITU16803001A	12	8	3	1



## Oil-Free Piston Vacuum Pumps

- No air pollution, maintenance free (driven by Piston, without the need of lubricant, regular oil changes and maintenance)
- The oil-free piston vacuum pump provides continuous, reliable, high flow vacuum for your container
- Pumps are equipped with vacuum regulator to adjust vacuum
- Pumps has a built-in thermal protection device to shut off the pump automatically when overheated and then resume working when the temperature cools down



Product Service

Products certificated for sales in EU, US and Asia Pacific

Model	V300	V400	V410
Power (V/Hz)	220 / 50	220 / 50	220 / 50
Max. power (W)	60	80	80
Max. current (A)	0.3	0.4	0.4
Max. vacuum (mbar)	100	100	30
Max. flow rate (L/min)	17	34	19
Motor rotation (RPM)	1450	1450	1450
Port thread (mm)	9	9	9
Dimension WxDxH (mm)	272 x 142 x 165	310 x 152 x 165	310 x 152 x 165
Weight (kg)	4.4	5.4	5.4
Noise level (dB)	50	60	50

### Ordering information

Product Code	Description	Qty.
OIFPUMPV300L17A	Ultimate Vacuum: 100mbar; Max. Flow Rate: 17 L/min	1/pk
OIFPUMPV400L34A	Ultimate Vacuum: 100 mbar; Max. Flow Rate: 34 L/min	1/pk
OIFPUMPV410L19A	Ultimate Vacuum: 30 mbar; Max. Flow Rate: 19 L/min	1/pk
OIFPUMPV600L60A	Ultimate Vacuum: 150 mbar; Max. Flow Rate: 60 L/min	1/pk
OIFPUMPV610L40A	Ultimate Vacuum: 30 mbar; Max. Flow Rate: 40 L/min	1/pk

Available Voltage : 110V or 220V

Plug-Type : EU, US, UK, Australian, India, Japan, Switzerland

## Chemical Resistant Diaphragm Vacuum Pumps

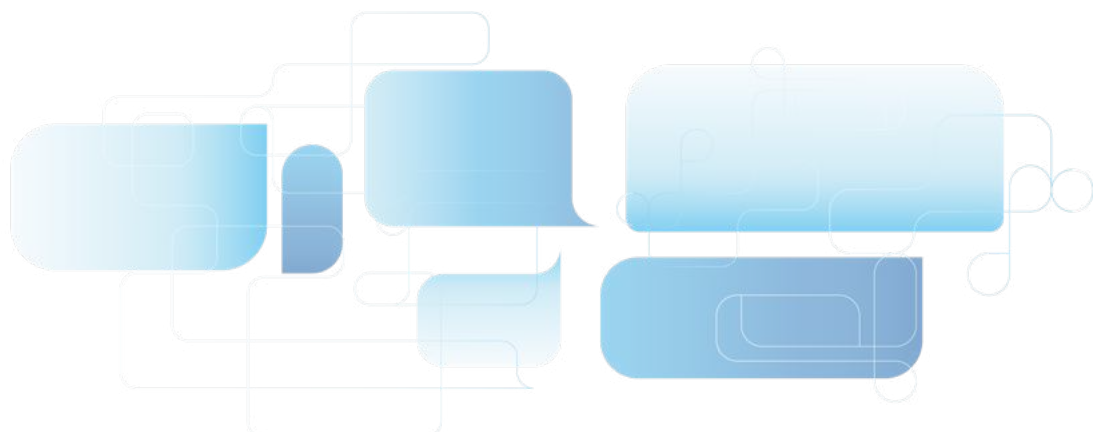
- Chemical and petrochemical Industry
- Pharma Industry
- Filtration processes
- Vacuum distillation
- Rotary evaporation
- Vacuum and centrifugal concentration
- Solid phase extraction
- Conventional drying and gel drying
- Advanced substitute for water-jet pumps



Model	C300		C400	
Powe	115V/60Hz	220V/50Hz	115V/60Hz	220V/50Hz
Max.power(W)	70	60	90	95
Max.current(A)	1.6	9.5	1.4	0.5
Max.vacuum(mbar)	100		120	
Max.Flow Rate(L/min)	22	22	34	34
Motor Speed(rpm)	1700	1450	1700	1450
Number of Stages	Single		Single	
Outlet(mm)	10		10	
Size WxDxH(mm)	233*110*210		294*156*195	
Weight(kg)	6		8.5	
Noise Level(dB)	50		50	

### Ordering information

Product Code	Description
DIAPUMPC300L22AE	Ultimate Vacuum: 100 mbar; Max. Flow Rate: 22 L/min
DIAPUMPC400L34AE	Ultimate Vacuum: 120 mbar; Max. Flow Rate: 34 L/min
DIAPUMPC410L25AE	Ultimate Vacuum: 13 mbar; Max. Flow Rate: 25 L/min
DIAPUMPC510L34AE	Ultimate Vacuum: 8 mbar; Max. Flow Rate: 34 L/min;
DIAPUMPC600L60AE	Ultimate Vacuum: 90 mbar; Max. Flow Rate: 60 L/min
DIAPUMPC610L37AE	Ultimate Vacuum: 2-4 mbar; Max. Flow Rate: 37 L/min



## Diaphragm Liquid Pump

- **Save 30% time**

GVS Diaphragm Liquid Pump comes with a built-in liquid pump to transfer the filtered liquid directly to waste.

- **Save 40% bench space**

Connected to filtration system without attaching to waste bottles, which can save up to 40% of bench space in limited lab area.

- **Touchless operation, contamination-free**

Equipped with an infrared sensor switch that activates filtration with a wave of your hand. No touch is necessary.

- **In compliance with ISO 8199**

Complied with ISO 8199 regulation and is ideal for microbiological sample filtration. (\*ISO 8199: Water quality - General guidance for microbiological examinations by culture).

- **Clean and efficient**

With no need for lubricant and oil-mist-free. Its built-in brushless DC motor offers stronger and stabler flow than other equivalent models.

- **One-Year Warranty**



### Specifications

Max. vacuum	313 mbar abs.
Max. liquid ow rate	4.5 L/min
Hose barb	ID8
Noise level	60 dB
Net weight	2.4 Kg
Dimension (LxWxH)	24 x 19 x 20 cm
Material contact with ltrate	SS316, FKM, Silicone, PP, PPS
Power input	DC24V, 1.8A
Max. power	44W
Motor	Brushless DC Motor (BLDC)
Safety	Overload Protection

### Ordering information

Product Code	Description
DLPRG200UA	Diaphragm Liquid Pump with AC100-240V adaptor, US plug
DLPRG200EA	Diaphragm Liquid Pump with AC100-240V adaptor, EU plug
DLPRG200EB	Diaphragm Liquid Pump with AC100-240V adaptor, UK plug

## 50 mm Vent Filter

### Characteristics

**Membrane:** hydrophobic PTFE reinforced with polypropylene

**Porosities:** 0.45 µm or 0.20 µm

**Housing:** Polypropylene Ultrasonically welded

Connectors: 6 mm (1/4 in) to 12 mm (1/2 in) stepped barb

**Filter Area:** 19.6 cm<sup>2</sup>

**Air Flow Rate:** 32 L/min at 1 bar (0.45 µm), 27 L/min at 1 bar (0.20 µm)

**Housing Diameter:** 63 mm

**Housing Length:** 53 mm

**Maximum Pressure:** 3.5 bar (approx. 50 psi)

**Sterilization:** Autoclave at 121°C or ETO



### Typical Applications

- Sterile venting of filling vessels and carboys
- Autoclave venting
- Low volume sterile filtration of non-aqueous fluids
- In-line sterilization of and particulate removal from air and gases

### Vent Filter - Non Sterile

#### Ordering information

Membrane Material	Pore Size(µm)	End Fitting	Housing	Color	Product Code Packaging 100/pk
PTFE	0.20	Barb Connectors	Polypropylene	Transparent	VF50ANPPT002AC01
PTFE	0.45	Barb Connectors	Polypropylene	Transparent	VF50ANPPT004AC01

### Vent Filter - Sterile

#### Ordering information

Membrane Material	Pore Size(µm)	End Fitting	Housing	Color	Product Code Packaging 10/pk
PTFE	0.20	Barb Connectors	Polypropylene	Transparent	VF50ASPPT002AX01
PTFE	0.45	Barb Connectors	Polypropylene	Transparent	VF50ASPPT004AX01

## Automatic Device of Filter Membrane

### Product Instruction

The Automatic Device of Filter Membrane is a continuous membrane for dispensing individual aseptic packaging. The membrane device automatically removes the aseptic packaging of the filter membrane, even available model with a touch-free mode induced by an optical sensor.. No manual operation, free the user's hands, the membrane is distributed in the process, do not contact with other items, to avoid the risk of contamination.

### Operating Principle

The membrane and the transparent are fixed on the two scrolls by the roll clamp, and the transparent is separated from the membrane by the rotation of the two scrolls, so as to distribute the membrane. When the membrane is distributed, it does not come into contact with other items to avoid the risk of contamination.

### Range of Application

- ◆ Pharmaceutical industry: microbial limit inspection of purified water, water for injection, raw materials and oral liquid, tablets, capsules, biological products and preparations.
- ◆ CDC: air conditioning condensate, drinking water and other water quality of the total number of bacterial colony
- ◆ inspection and detection of pathogens.
- ◆ Food industry: Check the total number of colonies of beverages, mineral water and purified water. Cosmetics and chemical industry: all kinds of water samples that need to be tested for microorganisms.

### Technical Parameters

- ◆ Input voltage: 80 to 264 VAC
- ◆ Frequency: 47 -63 Hz
- ◆ Power Supply: 12 VDC
- ◆ 30 °C +70 °C wide range working temperature



Transformer and adapter plugs according to countries



### Technical feature

- ◆ Stainless steel body spray processing, small size, beautiful shape.
- ◆ Available with Power Supply or lithium-ion batteries.
- ◆ AC drive can be connected to the charger.
- ◆ Automatic distribution filter membrane.
- ◆ Available model with optical sensor to take the film, without manual operation touch the button to take the film.
- ◆ Fast and reliable transfer of filter membrane, filter membrane transfer by reel drive technology.
- ◆ The filter membrane is easy to load.
- ◆ Automatic collection of protective packaging.
- ◆ Original color calibration technology, accurate detection.

### Ordering information

Product Code	Description	Qty.
SPMD0003CH	Membrane Dispenser, Power supply - Europe plug	1 pc
SPMD0003CHAD	Adapter plugs for Membrane Dispenser	1 pc

Dimensions and Weight	Value	Units
Dimensions (L × W × H)	209 × 182 × 206	mm
Weight	3.5	kg

## Enumeration of Legionella

Legionella is a bacterial micro-organism responsible for Legionellosis disease.



Determination Method	Membrane
Legionella ISO11731: Concentration Method	PCTE or PES Membrane, 47mm, 0.2um pore size
Legionella ISO11731: Direct Culturing Method	NC or MCE Membrane, 47mm, 0.2um or 0.45um pore size

The ISO 11731 International Standard Water Quality - Enumeration of Legionella specifies the culture and analysis methods for the isolation of Legionella and enumeration in water samples. Test methods include concentration by membrane filtration, dilution or directly plated.

For direct placing on culture media, ISO 11731 recommends the use of nitrocellulose (NC) or mixed cellulose ester (MCE) membranes for culturing media; diameter of 47mm or 50mm with rated pore sizes of 0.2um or 0.45um.

For concentration and elution: ISO 11731 recommends the use of PCTE or PES membrane filters, diameter 47mm to 142 mm with rated pore sizes of 0.2 µm for concentration followed by a washing procedure.

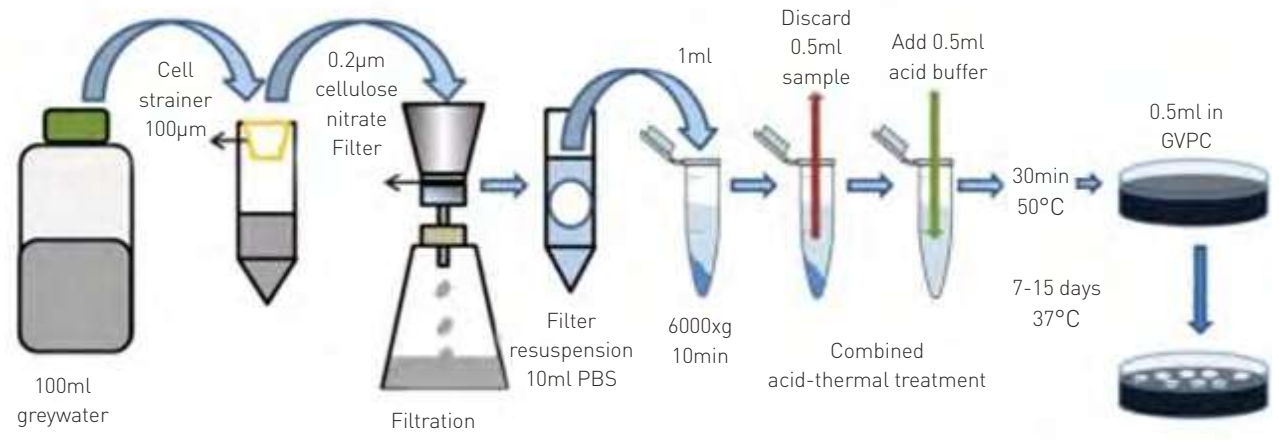
Determination Method	Membrane
Legionella ISO 12869	FLAME FAST All-in-ONE kit

Traditional culture culture-based detection of bacteria is often laborious and time consuming.

PCR-based methodologies are generally more specific, informative immediate strain identification), sensitive, and faster. Although, a pre-enrichment step is still often needed, the simplicity and time saving feature of the PCR reaction has made it increasingly applicable for detection of bacterial pathogens.

**PCR based ISO standard methods, such as ISO12869 rules how to detect Legionella**

## WORKFLOW OF ACTUAL METHODS WITH CONVERGENCE ON CONFIRMATION AND SEROTYPING STEP



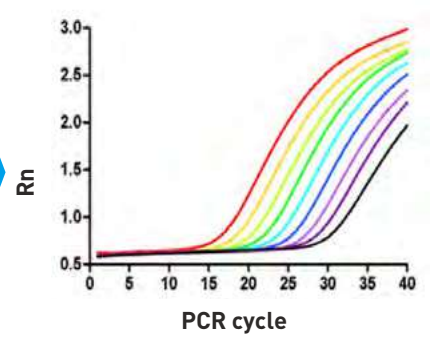
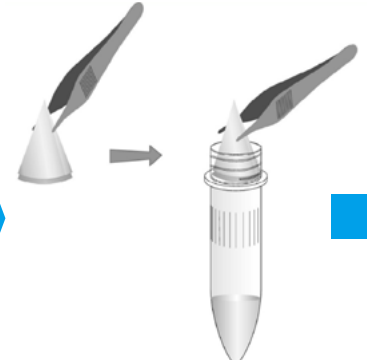
Confirmation and Serotyping of *L. pneumophila* by Latex



Confirmation and Serotyping of *L. pneumophila* by FLAME Fast *L. Pneumofia* and SG1 Multiplex kit



Water sample filtration



Detection and quantification of Legionella DNA by qPCR

## Polyethersulfone (PES) Membrane



GVS Polyethersulfone (PES) Filtration Membrane is hydrophilic and cast from pure polyethersulfone polymer. It is designed to remove particulates during general filtration and its low protein and drug binding characteristics make it ideally suited for use in life science applications.

### Product Uniformity and High Sensitivity Maximize Performance

This strong, microporous film asymmetric membrane is constructed from a high-temperature polyethersulfone polymer that is acid and base resistant. Its strength and durability are advantageous during usage that involves aggressive handling or automated equipment. GVS PES Filtration Membrane is naturally hydrophilic without added

wetting agents and has low extractables. Due to its inherent uniform porosity and controlled pore size, GVS PES Filtration Membrane efficiently removes particulates from solutions during general filtration.

### Features & Benefits

- Hydrophilic: Eliminates the need for wetting agents that can potentially interfere with analyses
- Low extractables: Ensures test results will not be compromised by wetting agents or other extractables
- Superior burst strength: Protects the integrity of the membrane under high pressure
- Lot-to-lot consistency: Quality checks, both down and across the membrane, ensure dependable results every time

### Typical Applications

- Protein and enzyme filtration and sterilization
- Biological fluid filtration and sterilization
- Pharmaceutical sterilization
- Environmental water studies

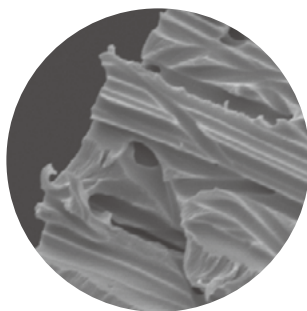
### Performance

Pore Size (µm)	Flow Time (s)	Volume/Vacuum (mL/in Hg)	Flow Rate (mL/min/cm <sup>2</sup> @ 10 psi)	Bubble Point (psi)
0,2	35-70	250/20	22.72-45.45	50-70

### Ordering information

Product Code	Pore Size (µm)	Dimension (mm)	Description	Packaging
1226158	0.2 µm	47 mm	PES white sterile single packed	200/pk
1226159	0.4 µm	47 mm	PES white sterile single packed	200/pk

## Polycarbonate Track Etched (PCTE) Membrane



**PORETICS**  
PCTE Membrane

GVS Life Sciences Polycarbonate Track Etched (PCTE) Membrane is made from a thin polycarbonate film with precisely defined pores. The proprietary manufacturing process provides increased control over pore size and density for absolute size separation. This unique process ensures the physical properties of each membrane precisely fit specification.

### Nominal Product Characteristics

<b>Thickness</b>	10 µm
<b>Optical Properties</b>	Semi-translucent
<b>Maximum Operating Temperature</b>	284°F (140°C)
<b>Sterilization</b>	Gamma Irradiation
<b>Autoclavable</b>	Yes
<b>Wetting Characteristics</b>	Hydrophilic

### Characteristics

- Smooth, thin, glass-like surface is suitable for microscopy and cellular applications
- Superior strength allows for aggressive handling
- Resists chemical staining to ease microscopic visualization

### Typical Applications

- Legionella test (UNI EN ISO 11731\_2017)

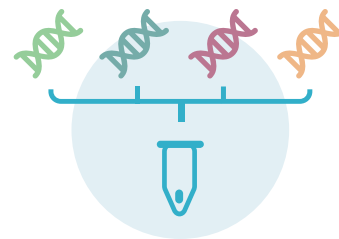


### Ordering information

Product Code	Pore Size (µm)	Dimension (mm)	Description	Packaging
1226157	0.2 µm	47 mm	PCTE white sterile single packed	200/pk
1226156	0.4 µm	47 mm	PCTE white sterile single packed	200/pk

## FLAME FAST ALL-IN-ONE QPCR KIT

A NEW ERA IN WATER ANALYSIS  
with Membranes and E xtraction kit included



## FAST, CERTIFIED, READY TO USE



ALL THE REAGENTS  
PRE-DOSED AND  
LYOPHILIZED IN THE  
REACTION TUBES



TESTED AND VALI-  
DATED PROTOCOLS

### ENERGY SAVING

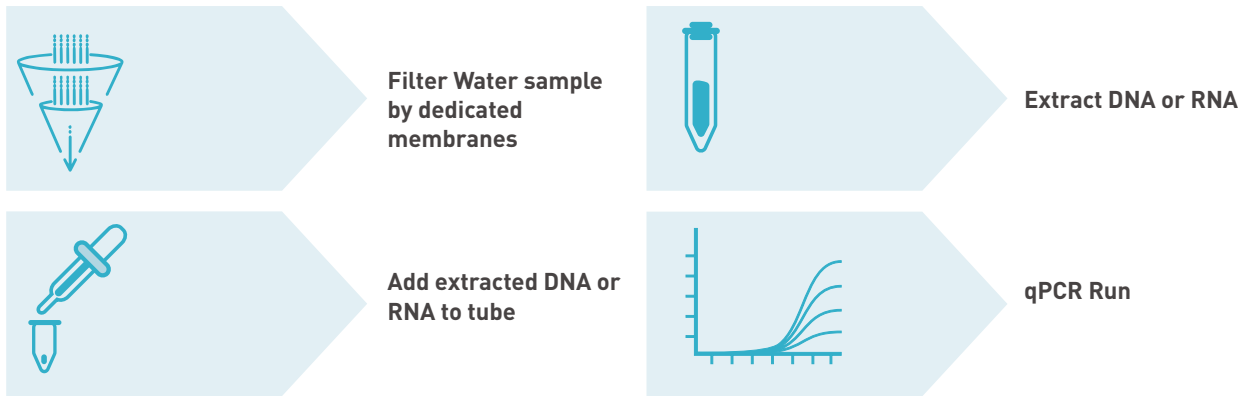
TRANSPORT AND STORAGE  
AT ROOM TEMPERATURE

### LONG SHELF LIFE

PRODUCT DURABILITY  
24 MONTHS

### FLEXIBILITY

AVAILABLE VERSION FOR MANUAL  
OR AUTOMATIC (MAGNETIC BEADS)  
EXTRACTION



## AVAILABLE TARGETS FOR WATER ANALYSIS

Legionella pneumophila and Legionella spp.  
[Compliance with NF T90-471, ISO 11731:2017 and ISO/TS 12869:2019]

Clostridium perfringens

Salmonella spp.

Campylobacter spp

Yersinia spp

Pseudomonas aeruginosa

Campylobacter spp. + Salmonella spp. + Legionella spp.

Clostridium perfringens + Yersinia spp. + Pseudomonas aeruginosa

## AVAILABLE SIZE 48 OR 96 TESTS



### QUALITY CERTIFIED

Zero risk of operator error, inhibition controls, ISO and relevant standards compliant.



### COMPATIBILITY

Compatibility with main Real Time PCR instruments, validated with the principal extraction systems.



### FAST

Simultaneous multitarget detection, little bit over one hour analysis, reduced hand on time, for RNA one step RT-PCR.



### READY TO USE

No need to add anything else.



### INNOVATION

Multiplex Assays to measure more targets by only one run.



### RECLOSEABLE BAG

Use one or more tubes, according to your needs.

## Ordering information

Product Code	Description
FLFAI01007Z48	FLAME FAST Clostridium perfringens ALL-IN-1 Kit - 48 rxn (0,1 tubes) (0,1 tubes)
FLFAI01003Z48	FLAME FAST Salmonella species ALL-IN-1 Kit - 48 rxn (0,1 tubes) (0,1 tubes)
FLFAI01004Z48	FLAME FAST Campylobacter species ALL-IN-1 Kit - 48 rxn (0,1 tubes)
FLFAI01072Z48	FLAME FAST Yersinia species ALL-IN-1 Kit - 48 rxn (0,1 tubes)
FLFAI01073Z48	FLAME FAST Pseudomonas aeruginosa ALL-IN-1 Kit - 48 rxn (0,1 tubes)
FLFAI01113Z48	FLAME FAST L. pneumophila ALL-IN-1 Kit - 48 rxn (0,1 tubes)
FLFAI01074Z48	FLAME FAST Legionella species ALL-IN-1 Kit - 48 rxn (0,1 tubes)
FLFAI01075Z48	FLAME FAST Campylobacter sp-Salmonella sp-Legionella sp ALL-IN-1 Multi Kit - 48 rxn (0,1 tubes)
FLFAI01076Z48	FLAME FAST Legionella pn-Legionella sp-Pseudomonas aerug. ALL-IN-1 Multi Kit - 48 rxn(0,1 tubes)
FLFAI01007Z96	FLAME FAST Clostridium perfringens ALL-IN-1 Kit - 96 rxn (0,1 tubes)
FLFAI01003Z96	FLAME FAST Salmonella species ALL-IN-1 Kit - 96 rxn (0,1 tubes)
FLFAI01004Z96	FLAME FAST Campylobacter species ALL-IN-1 Kit - 96 rxn (0,1 tubes)
FLFAI01072Z96	FLAME FAST Yersinia species ALL-IN-1 Kit - 96 rxn (0,1 tubes)
FLFAI01073Z96	FLAME FAST Pseudomonas aeruginosa ALL-IN-1 Kit - 96 rxn (0,1 tubes)
FLFAI01113Z96	FLAME FAST L. pneumophila ALL-IN-1 Kit - 96 rxn (0,1 tubes)
FLFAI01074Z96	FLAME FAST Legionella species ALL-IN-1 Kit - 96 rxn (0,1 tubes)
FLFAI01075Z96	FLAME FAST Campylobacter sp-Salmonella sp-Legionella sp ALL-IN-1 Multi Kit - 96 rxn (0,1 tubes)
FLFAI01076Z96	FLAME FAST Legionella pn-Legionella sp-Pseudomonas aerug. ALL-IN-1 Multi Kit - 96 rxn(0,1 tubes)
FLFMAI01007Z32	FLAME FAST Clostridium perfringens ALL-IN-1 Kit with Magnetic Beads - 48 rxn (0,1 tubes)
FLFMAI01003Z32	FLAME FAST Salmonella species ALL-IN-1 Kit with Magnetic Beads - 32 rxn (0,1 tubes)
FLFMAI01004Z32	FLAME FAST Campylobacter species ALL-IN-1 Kit with Magnetic Beads - 32 rxn (0,1 tubes)
FLFMAI01072Z32	FLAME FAST Yersinia species ALL-IN-1 Kit with Magnetic Beads - 32 rxn (0,1 tubes)
FLFMAI01073Z32	FLAME FAST Pseudomonas aeruginosa ALL-IN-1 Kit with Magnetic Beads - 32 rxn (0,1 tubes)
FLFMAI01113Z32	FLAME FAST L. pneumophila ALL-IN-1 Kit with Magnetic Beads - 32 rxn (0,1 tubes)
FLFMAI01074Z32	FLAME FAST Legionella species ALL-IN-1 Kit with Magnetic Beads - 32 rxn (0,1 tubes)
FLFMAI01075Z32	FLAME FAST Campylobacter sp-Salmonella sp-Legionella sp ALL-IN-1 Multi Kit w/MB-32 rx(0,1 tubes)
FLFMAI01076Z32	FLAME FAST Legionella pn-Legionella sp-Pseudomonas aeru ALL-IN-1 Multi Kit w/MB-32 rx(0,1 tubes)
FLFMAI01007Z96	FLAME FAST Clostridium perfringens ALL-IN-1 Kit with Magnetic Beads - 96 rxn (0,1 tubes)
FLFMAI01003Z96	FLAME FAST Salmonella species ALL-IN-1 Kit with Magnetic Beads - 96 rxn (0,1 tubes)
FLFMAI01004Z96	FLAME FAST Campylobacter species ALL-IN-1 Kit with Magnetic Beads - 96 rxn (0,1 tubes)
FLFMAI01072Z96	FLAME FAST Yersinia species ALL-IN-1 Kit with Magnetic Beads - 96 rxn (0,1 tubes)
FLFMAI01073Z96	FLAME FAST Pseudomonas aeruginosa ALL-IN-1 Kit with Magnetic Beads - 96 rxn (0,1 tubes)
FLFMAI01113Z96	FLAME FAST L. pneumophila ALL-IN-1 Kit with Magnetic Beads - 96 rxn (0,1 tubes)
FLFMAI01074Z96	FLAME FAST Legionella species ALL-IN-1 Kit with Magnetic Beads - 96 rxn (0,1 tubes)
FLFMAI01075Z96	FLAME FAST Campylobacter sp-Salmonella sp-Legionella sp ALL-IN-1 Multi Kitw/MB-96 rx (0,1 tubes)
FLFMAI01076Z96	FLAME FAST Legionella pn-Legionella sp-Pseudomonas aeru ALL-IN-1 Multi Kit w/MB-96 rx(0,1 tubes)
FLM01007B	FLAME FAST Clostridium perfringens qPCR detection Kit (24 rxn in 0,1ml clear tubes)
FLM01003B	FLAME FAST Salmonella qPCR species detection Kit (24 rxn in 0,1ml clear tubes)
FLM01004B	FLAME FAST Campylobacter species qPCR detection Kit (24 rxn in 0,1ml clear tubes)
FLM01072B	FLAME FAST Yersinia species qPCR detection Kit (24 rxn in 0,1ml clear tubes)
FLM01073B	FLAME FAST Pseudomonas aeruginosa qPCR detection Kit (24 rxn in 0,1ml clear tubes)
FLM01113B	FLAME FAST L. pneumophila qPCR detection Kit (24 rxn in 0,1ml clear tubes)
FLM01074B	FLAME FAST Legionella species qPCR detection Kit (24 rxn in 0,1ml clear tubes)
FLM01075B	FLAME FAST Campylobacter sp, Salmonella sp and Legionella sp qPCR detection Kit -24 rx(0,1 tub)
FLM01076B	FLAME FAST Legionella pn., Legionella sp and Pseudomonas aerug qPCR detection Kit-24 rx(0,1 tub)
FLFAI01007T48	FLAME FAST Clostridium perfringens ALL-IN-1 Kit - 48 rxn (0,2 tubes)
FLFAI01003T48	FLAME FAST Salmonella species ALL-IN-1 Kit - 48 rxn (0,2 tubes)
FLFAI01004T48	FLAME FAST Campylobacter species ALL-IN-1 Kit - 48 rxn (0,2 tubes)
FLFAI01072T48	FLAME FAST Yersinia species ALL-IN-1 Kit - 48 rxn (0,2 tubes)
FLFAI01073T48	FLAME FAST Pseudomonas aeruginosa ALL-IN-1 Kit - 48 rxn (0,2 tubes)
FLFAI01113T48	FLAME FAST L. pneumophila ALL-IN-1 Kit - 48 rxn (0,2 tubes)
FLFAI01074T48	FLAME FAST Legionella species ALL-IN-1 Kit - 48 rxn (0,2 tubes)
FLFAI01075T48	FLAME FAST Campylobacter sp-Salmonella sp-Legionella sp ALL-IN-1 Multi Kit - 48 rxn (0,2 tubes)
FLFAI01076T48	FLAME FAST Legionella pn-Legionella sp-Pseudomonas aerug ALL-IN-1 Multi Kit - 48 rxn (0,2 tubes)
FLFAI01007T96	FLAME FAST Clostridium perfringens ALL-IN-1 Kit - 96 rxn (0,2 tubes)
FLFAI01003T96	FLAME FAST Salmonella species ALL-IN-1 Kit - 96 rxn (0,2 tubes)
FLFAI01004T96	FLAME FAST Campylobacter species ALL-IN-1 Kit - 96 rxn (0,2 tubes)
FLFAI01072T96	FLAME FAST Yersinia species ALL-IN-1 Kit - 96 rxn (0,2 tubes)
FLFAI01073T96	FLAME FAST Pseudomonas aeruginosa ALL-IN-1 Kit - 96 rxn (0,2 tubes)
FLFAI01113T96	FLAME FAST L. pneumophila ALL-IN-1 Kit - 96 rxn (0,2 tubes)

## Ordering information

Product Code	Description
FLFAI01113T96	FLAME FAST <i>L. pneumophila</i> ALL-IN-1 Kit - 96 rxn (0,2 tubes)
FLFAI01074T96	FLAME FAST <i>Legionella</i> species ALL-IN-1 Kit - 96 rxn (0,2 tubes)
FLFAI01075T96	FLAME FAST <i>Campylobacter</i> sp- <i>Salmonella</i> sp- <i>Legionella</i> sp ALL-IN-1 Multi Kit - 96 rxn (0,2 tubes)
FLFAI01076T96	FLAME FAST <i>Legionella</i> pn- <i>Legionella</i> sp- <i>Pseudomonas aerug</i> ALL-IN-1 Multi Kit - 96 rxn (0,2 tubes)
FLFMAI01007T32	FLAME FAST <i>Clostridium perfringens</i> ALL-IN-1 Kit with Magnetic Beads - 32 rxn (0,2 tubes)
FLFMAI01003T32	FLAME FAST <i>Salmonella</i> species ALL-IN-1 Kit with Magnetic Beads - 32 rxn (0,2 tubes)
FLFMAI01004T32	FLAME FAST <i>Campylobacter</i> species ALL-IN-1 Kit with Magnetic Beads - 32 rxn (0,2 tubes)
FLFMAI01072T32	FLAME FAST <i>Yersinia</i> species ALL-IN-1 Kit with Magnetic Beads - 32 rxn (0,2 tubes)
FLFMAI01073T32	FLAME FAST <i>Pseudomonas aeruginosa</i> ALL-IN-1 Kit with Magnetic Beads - 32 rxn (0,2 tubes)
FLFMAI01113T32	FLAME FAST <i>L. pneumophila</i> ALL-IN-1 Kit with Magnetic Beads - 32 rxn (0,2 tubes)
FLFMAI01074T32	FLAME FAST <i>Legionella</i> species ALL-IN-1 Kit with Magnetic Beads - 32 rxn (0,2 tubes)
FLFMAI01075T32	FLAME FAST <i>Campylobacter</i> sp- <i>Salmonella</i> sp- <i>Legionella</i> sp ALL-IN-1 Multi Kit w/MB-32 rxn(0,2 tub)
FLFMAI01076T32	FLAME FAST <i>Legionella</i> pn- <i>Legionella</i> sp- <i>Pseudomonas aerug</i> ALL-IN-1 Multi Kit w/MB-32 rxn(0,2 tub)
FLFMAI01007T96	FLAME FAST <i>Clostridium perfringens</i> ALL-IN-1 Kit with Magnetic Beads - 96 rxn (0,2 tubes)
FLFMAI01003T96	FLAME FAST <i>Salmonella</i> species ALL-IN-1 Kit with Magnetic Beads - 96 rxn (0,2 tubes)
FLFMAI01004T96	FLAME FAST <i>Campylobacter</i> species ALL-IN-1 Kit with Magnetic Beads - 96 rxn (0,2 tubes)
FLFMAI01072T96	FLAME FAST <i>Yersinia</i> species ALL-IN-1 Kit with Magnetic Beads - 96 rxn (0,2 tubes)
FLFMAI01073T96	FLAME FAST <i>Pseudomonas aeruginosa</i> ALL-IN-1 Kit with Magnetic Beads - 96 rxn (0,2 tubes)
FLFMAI01113T96	FLAME FAST <i>L. pneumophila</i> ALL-IN-1 Kit with Magnetic Beads - 96 rxn (0,2 tubes)
FLFMAI01074T96	FLAME FAST <i>Legionella</i> species ALL-IN-1 Kit with Magnetic Beads - 96 rxn (0,2 tubes)
FLFMAI01075T96	FLAME FAST <i>Campylobacter</i> sp- <i>Salmonella</i> sp- <i>Legionella</i> sp ALL-IN-1 Multi Kit w/MB-96 rxn(0,2 tub)
FLFMAI01076T96	FLAME FAST <i>Legionella</i> pn- <i>Legionella</i> sp- <i>Pseudomonas aerug</i> ALL-IN-1 Multi Kit w/MB-96 rxn(0,2 tub)
FLM01007	FLAME FAST <i>Clostridium perfringens</i> qPCR detection Kit (24 rxn in 0,2ml clear tubes)
FLM01003	FLAME FAST <i>Salmonella</i> qPCR species detection Kit (24 rxn in 0,2ml clear tubes)
FLM01004	FLAME FAST <i>Campylobacter</i> species qPCR detection Kit (24 rxn in 0,2ml clear tubes)
FLM01072	FLAME FAST <i>Yersinia</i> species qPCR detection Kit (24 rxn in 0,2ml clear tubes)
FLM01073	FLAME FAST <i>Pseudomonas aeruginosa</i> qPCR detection Kit (24 rxn in 0,2ml clear tubes)
FLM01113	FLAME FAST <i>L. pneumophila</i> qPCR detection Kit (24 rxn in 0,2ml clear tubes)
FLM01074	FLAME FAST <i>Legionella</i> species qPCR detection Kit (24 rxn in 0,2ml clear tubes)
FLM01075	FLAME FAST <i>Campylobacter</i> sp- <i>Salmonella</i> sp- <i>Legionella</i> sp qPCR detection Kit-24 rx(0,2 tubes)
FLM01076	FLAME FAST <i>Legionella</i> pn- <i>Legionella</i> sp- <i>Pseudomonas aerug</i> qPCR detection Kit-24 rxn(0,2 tubes)
FLB01014	FLAME Fast DNA Extraction kit from clear water (24 rxn)
FLB21009	FLAME Fast DNA Extraction kit from food (24 rxn)
FLB0270	FLAME BEADS UNIVERSAL DNA/RNA EXTRACTION Kit 96 test
FLB0271	FLAME BEADS UNIVERSAL DNA/RNA EXTRACTION Kit PreFilled Plate 96 test
FLB0273	FLAME BEADS UNIVERSAL DNA/RNA EXTRACTION Kit PreFilled Plate 64 test
FLB0010	FLAME BEADS Lysis Buffer 30 ml
FLB0011	FLAME BEADS Lysis Buffer 125 ml
FLB0268	FLAME BEADS Carrier 1 mg
FLB0269	FLAME BEADS Carrier Buffer 1.2 ml
FLB01009	FLAME Fast free DNA inactivator - 200 test
FLB02014	FLAME Fast DNA Extraction kit from dirty water (24 rxn)



**MicroPad**  
**MICROBIAL COUNT**  
**PLATE**

## Microbiology - the cause of 95% of food safety issues

Microorganisms are of great significance to foods for several reasons. The most significant one is that they can cause spoilage of foods and can also be applied to manufacture a wide variety of food products, as well as cause microbial diseases transmitted by foods. According to world food safety market research and statistics, 99.5% of the issues in food safety is caused by microbiology.

Detection, identification and enumeration of these foodborne microorganisms are of great importance. From general food hygiene to pathogens enumeration, it is necessary and urgent to make sure that the foods are safe for human consumption. Foods can be considered as a medium for microbial growth. Considering the vast array of sources, substances, and methods with which food is produced, practically every kind of microbe is a potential contaminant.

Conventional detection of pathogenic bacteria is mainly based on cultivation procedures, which use enrichment broths followed by the isolation of colonies on selective media, biochemical identification and confirmation of pathogenicity. This culture method is selective for the search of one type of pathogen at a time.

Here at GVS, we have successfully developed many new microbiology count plate based on selective medium to enumerate the food microorganisms in various samples. In this leaflet, you will find the details and ordering information.

We guarantee you a rapid, sensitive, reliable, reproducible result.



## Readily-Usable MicroPad Microbiology Enumeration Medium

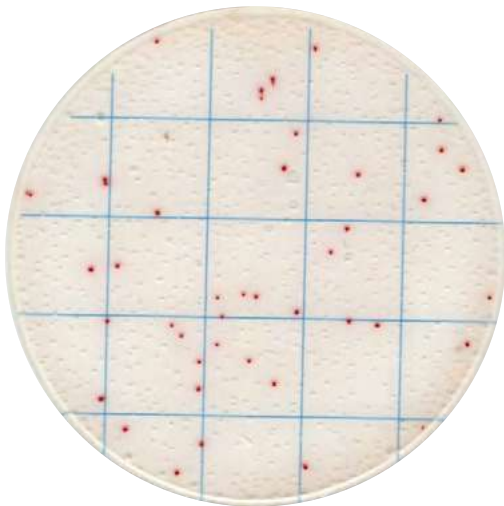


Less time & less labor work

No more culture medium preparation

No extra reagent required

### 1-24-C Easy Determination



#### 1ml Sample Suspension

1ml of solid sample suspension or 1ml liquid sample in PBS, adjust the pH to neutral.

#### 24h Incubation

Incubate at 36 °C for 22 - 24h.

#### Check the result

Enumerate the colonies according to the kit instruction manual. Further identification can be performed if necessary.

#### Ordering information

Product Code	Description	Result	Incubation
MCPG00125	Aerobic Count Plate	Red colony	36±1°C,48±2h
MCPG00225	Staph Count Plate	Dark purple red colony	36±1°C,24±2h
MCPG00325	Pivot E. coli / Coliform Count Plate	Blue purple colony	36±1°C, 24±2h
MCPG00425	Pivot Coliform Count Plate	Green colony	36±1°C,24±2h
MCPG00525	Listeria Count Plate	Blue green colony	36±1°C,24±2h
MCPG00825	Yeast & Mould Count Plate	Green colony	28±1°C,48-2h
MCPG01025	Coliform Count Plate	Red colony	36±1°C,18-24h
MCPG01125	E.coli / Coliform Count Plate	Blue purple & red colony	36±1°C,18-24h

## Readily-Usable MicroPad Microbiology Enumeration Medium



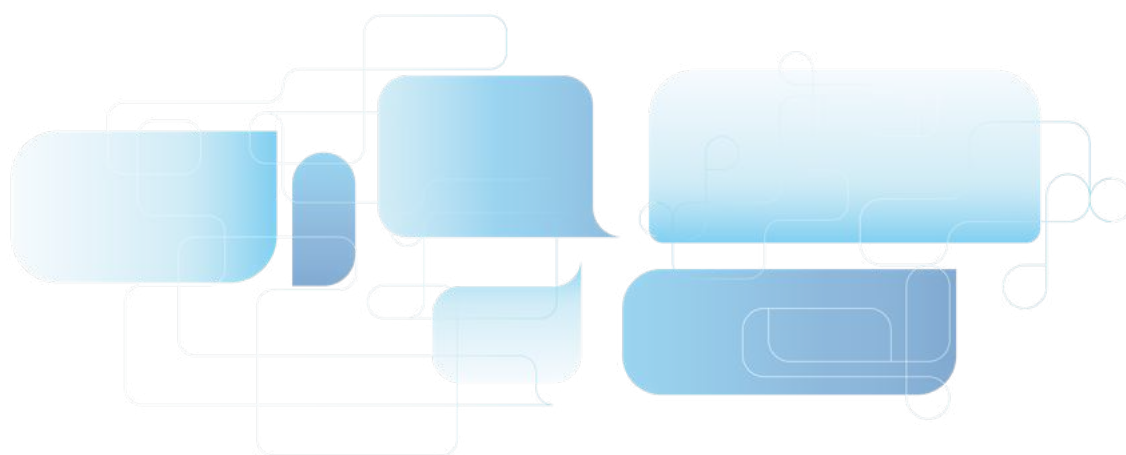
Less time & less labor work

No more culture medium preparation

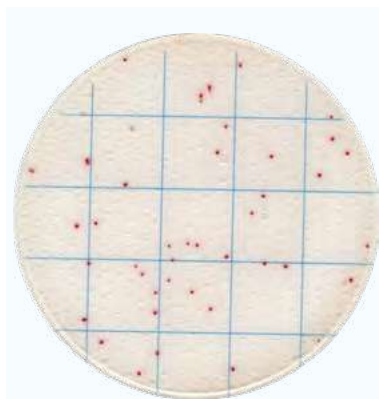
No extra reagent required

### Ordering information

Product Code	Description	Result	Incubation
MCPG01325	Bacillus Cereus Count Plate	Purple red colony	36±1°C, 48±2h
MCPG01425	Lactic Acid Bacteria Count Plate	Red colony	36±1°C, 48±2h
MCPG01525	Salmonella Count Plate	Purple red colony	36±1°C, 24±2h
MCPG01625	Enterobacteriaceae Count Plate	Red colony	36±1°C, 18-24h
MCPG01725	Geobacillus s. Count Plate	Red colony	55±1°C, 36±1h
MCPG01825	Enterococcus f. Count Plate	Black, black green colony	36±1°C, 26±2h
MCPG01925	Bacillus Psychrophilus Count Plate	Red colony	21±1°C, 48-60h
MCPG02425	Aerobic Bacillus Count Plate	Red colony	36 ±1°C, 24±2h
MCPG02525	Shigella Count Plate	Red colony	36 ±1°C, 24-48h
MCPG02625	Listeria m. Count Plate	Blue green colony	36±1°C, 36h
MCPG02725	E.Coli O157 Count Plate	Gray colony with halo	36±1°C, 18-24h
MCPG02825	Vibrio parahaemolyticus Count Plate	Red colony	36±1°C, 8-18h
MCPG02925	Psychrophilic Bacteria Count Plate	Red colony	21±1°C, 28-30h



## MicroPad Aerobic Count Plate



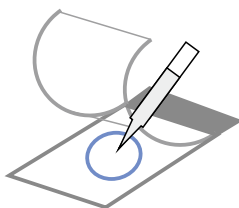
**Product Code: MCPG00125**      **25 plates / pack**

Aerobic Count Plate (ACP) is a sample-ready-culture medium system which contains readymade dry medium, a cold-water-soluble gelling agent and indicator. It can be used in direct counting of aerobic colonies after 48h – 72h incubation.

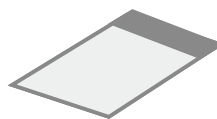
**Read the user manual carefully before test, and follow the instructions.  
Failure to do so may lead to inaccurate results.**



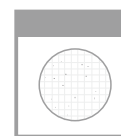
**Sample Preparation**



**Sampling**



**Incubation**



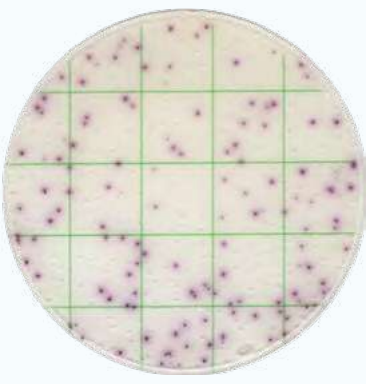
**Enumeration**

Aerobic Count Plate is applicable for the counting of as many as 65 aerobic bacteria. All will produce red colonies for counting, regardless of the size and clarity.

The following bacteria has been tested successfully with this count plate

ATCC 8099, CICC 10305, ATCC 25922, CICC 10003, CICC 10389, CICC 10907, CICC 21530, CICC 10667, CICC 24190, CICC 24186, CICC 24188, CICC 24187, ATCC 25955, ATCC 10031, ATCC 13883, ATCC 13048, ATCC 29544, ATCC 25931, ATCC 12022, CICC 10865, CICC 23829, CICC 21534, CICC 21535, ATCC 9207, ATCC 15947, ATCC 51114, ATCC 43864, ATCC 25405, GDMCC 1.163, ATCC 13311, CICC 21501, CICC 21495, CICC 21512, CICC 21501, ATCC 27511, ATCC 33291, ATCC 43478, CICC 10869, ATCC 19433, ATCC 19258, CICC 20247, ATCC 8014, CICC 6009, ATCC 6538, ATCC 25923, CICC 10384, ATCC 27217, ATCC 12228, CMCC 26069, CICC 21602, ATCC 8032, ATCC 33090, ATCC 19111, ATCC 35967, ATCC 19119, ATCC 35897, ATCC 25401, CICC 20483, CICC 21261, ATCC 11778, ATCC 6633, CICC 10071, etc.

## MicroPad Staphylococcus aureus Count Plate



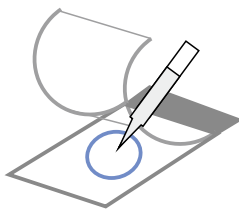
**Product Code: MCPG00225    25 plates / pack**

Staphylococcus aureus Count Plate is a sample-ready-culture medium system which contains readymade Baird-Parker medium, a cold-water-soluble gelling agent indicator and selective inhibitor. It can be used in direct counting of staphylococcus aureus colonies after 24h incubation.

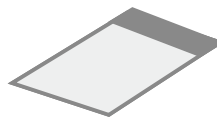
**Read the user manual carefully before test, and follow the instructions.  
Failure to do so may lead to inaccurate results.**



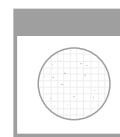
**Sample Preparation**



**Sampling**



**Incubation**

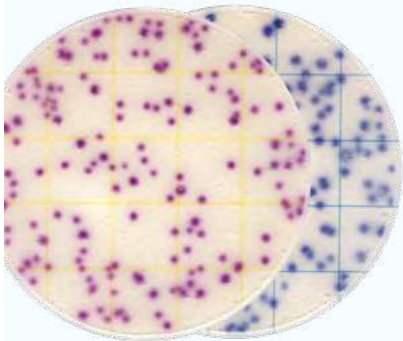


**Enumeration**

Incubate the plates at  $36 \pm 1$  °C for  $24 \pm 2$  hours.

For aquatic products, please incubate at  $30 \pm 1$  °C for  $72 \pm 3$  hours for. Up to 6 plates can be stacked in one incubation holder. On this Staphylococcus aureus count plate, Staphylococcus aureus is red colonies, other staphylococcus is light pink green or colorless colonies. Majority of gram-negative and other gram-positive bacterium cannot grow in this plate, or they can present as blue colonies.

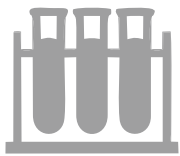
## MicroPad Pivot E. coli/Coliform Count Plate



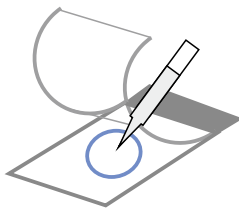
**Product Code: MCPG00325**      **25 plates / pack**

Pivot E. coli/Coliform Count Plate (ECCP) is a sample-ready-culture medium system which contains readymade dry medium, a cold-water-soluble gelling agent and indicator. It can be used in direct counting of E. coli and Coliform colonies after 24h incubation.

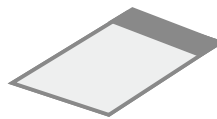
**Read the user manual carefully before test, and follow the instructions. Failure to do so may lead to inaccurate results.**



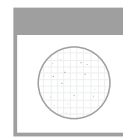
**Sample Preparation**



**Sampling**



**Incubation**



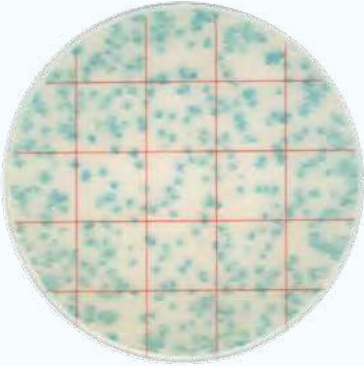
**Enumeration**

Incubate the plates at  $36 \pm 1$  °C for  $24 \pm 2$  hours. Up to 6 plates can be stacked in one incubation holder.

Counting of Coliform: Count colonies within 15-150 CFU. All red or blue colonies shall be counted regardless of the size or intensity.

Counting of E. coli: Count colonies within 10-100 CFU. All blue colonies shall be counted regardless of the size or intensity.

## MicroPad Pivot Coliform Count Plate



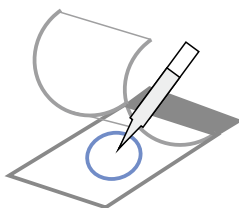
**Product Code: MCPG00425    25 plates / pack**

Pivot Coliform Count Plate (CCP) is a sample-ready-culture medium system which contains readymade dry medium, a cold-water-soluble gelling agent and indicator. It can be used in direct counting of coliform colonies after 24h incubation.

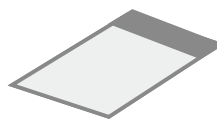
**Read the user manual carefully before test, and follow the instructions. Failure to do so may lead to inaccurate results.**



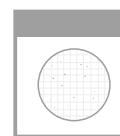
**Sample Preparation**



**Sampling**



**Incubation**



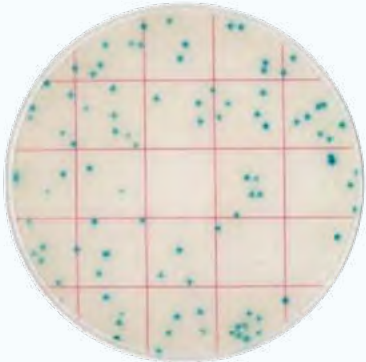
**Enumeration**

This Pivot Coliform Count Plate (CCP) can be used in the quantitative plating of Coliform Colonies in the food and beverage industries. Other applications are available upon request. Contact your supplier for more details.

Quantitative counting of the plate can be done by a standard colony counter or by software. All green colonies shall be counted regardless of the size or intensity.

Count colonies within 15-150 CFU, count all the green colonies.

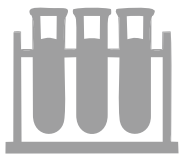
## MicroPad Listeria Count Plate



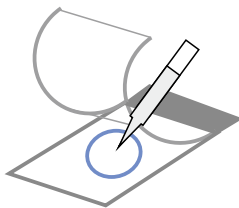
**Product Code: MCPG00525**      **25 plates / pack**

Aerobic Count Plate (ACP) is a sample-ready-culture medium system which contains readymade dry medium, a cold-water-soluble gelling agent and indicator. It can be used in direct counting of aerobic colonies after 48h – 72h incubation.

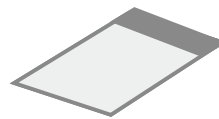
**Read the user manual carefully before test, and follow the instructions.  
Failure to do so may lead to inaccurate results.**



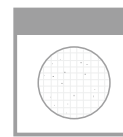
**Sample Preparation**



**Sampling**



**Incubation**



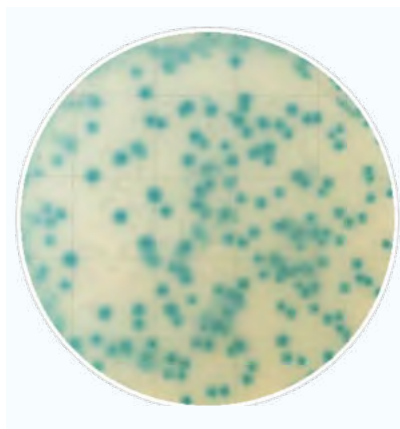
**Enumeration**

This Listeria Count Plate can be used in the quantitative plating of Listeria Colonies in the food, food material, water and production environment.

Quantitative counting of the plate can be done by a standard colony counter or by software. All green colonies shall be counted regardless of the size or intensity.

Count colonies within 30-200 CFU, count all the green colonies.

## MicroPad Yeast & Mould Count Plate



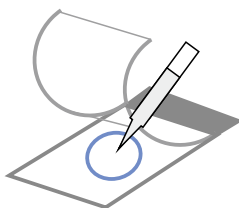
**Product Code: MCPG00825    25 plates / pack**

Yeast Mould Count Plate (YM) is a sample-ready-culture medium system which contains ready-made dry medium, somatomedin, a cold-water-soluble gelling agent and indicator. It can be used in direct counting of yeast and mould colonies after 2-3 days' incubation.

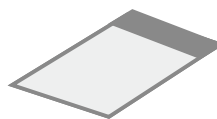
**Read the user manual carefully before test, and follow the instructions.  
Failure to do so may lead to inaccurate results.**



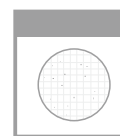
**Sample Preparation**



**Sampling**



**Incubation**



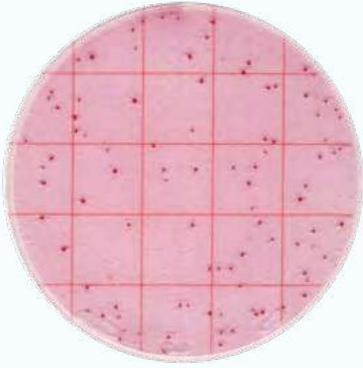
**Enumeration**

This Yeast Mould Count Plate can be used in the quantitative plating of yeast and mould colonies in the heat-processed product.

Quantitative counting of the plate can be done by a standard colony counter or by software. All green colonies shall be counted regardless of the size or intensity.

Count colonies within 10-150 CFU, count all the green colonies.

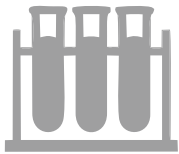
## MicroPad Coliform Count Plate



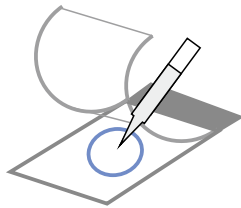
**Product Code: MCPG01025**      **25 plates / pack**

which contains readymade dry medium, a cold-water-soluble gelling agent and indicator. It can be used in direct counting of coliform colonies after 18h – 24h incubation.

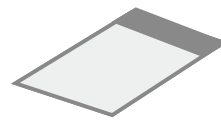
**Read the user manual carefully before test, and follow the instructions.  
Failure to do so may lead to inaccurate results.**



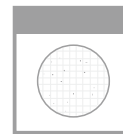
**Sample Preparation**



**Sampling**



**Incubation**



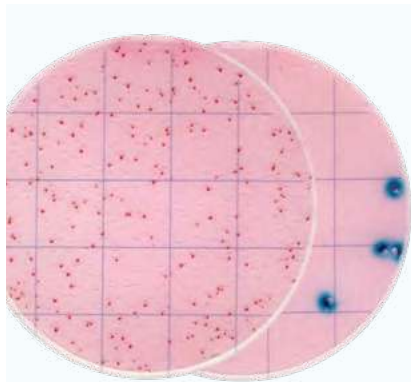
**Enumeration**

This Coliform Count Plate can be used in the quantitative plating of Coliform Colonies in the food and beverage industries. Incubate the plates at  $36\pm 1$  °C for 18-24 hours. Up to 6 plates can be stacked in one incubation holder.

Quantitative counting of the plate can be done by a standard colony counter or by software. All red colonies shall be counted regardless of the size or intensity.

Count colonies within 15-150 CFU, count all the red colonies.

## MicroPad E. coli/Coliform Count Plate



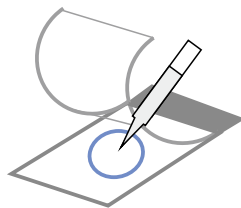
**Product Code: MCPG01125**      **25 plates / pack**

E. coli/Coliform Count Plate is a sample-ready-culture medium system which contains readymade dry medium, a cold-water-soluble gelling agent and indicator. It can be used in direct counting of E. coli/Coliform colonies after 18-24h incubation.

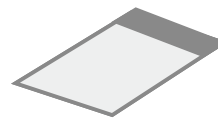
**Read the user manual carefully before test, and follow the instructions. Failure to do so may lead to inaccurate results.**



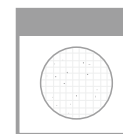
**Sample Preparation**



**Sampling**



**Incubation**

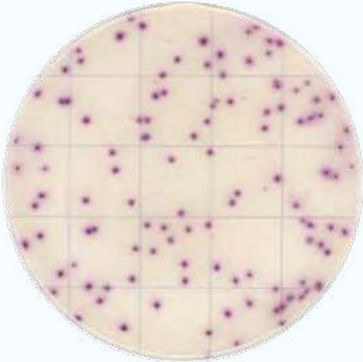


**Enumeration**

This E. coli/Coliform Count Plate can be used in the quantitative plating of E. coli/Coliform Colonies in the food and beverage industries.

Coliform can grow in this plate, Escherichia Coli are blue colonies associated with gas bubble, Klebsiella pneumonia and enterobacter cloacae are red colonies associated with gas bubble, Citrobacter are red colonies without gas bubble. Other gram-negative bacterium (Salmonella, Shigella) can grow in this plate, their colonies are red without gas bubble. Enterobacter Sakazakii can grow in this plate, its colonies are red associated with gas bubble.

## MicroPad Bacillus cereus Count Plate



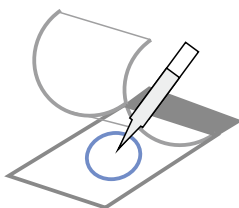
**Product Code: MCPG01325    25 plates / pack**

Bacillus cereus Count Plate (BCCP) is a sample-ready-culture medium system which contains readymade dry medium, a cold-water-soluble gelling agent and indicator. It can be used in direct counting of Bacillus cereus colonies after 24h incubation.

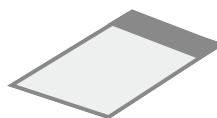
**Read the user manual carefully before test, and follow the instructions. Failure to do so may lead to inaccurate results.**



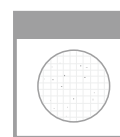
**Sample Preparation**



**Sampling**



**Incubation**



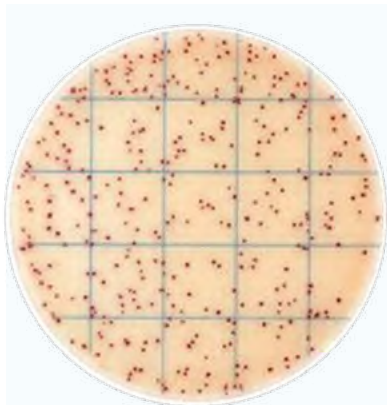
**Enumeration**

This Bacillus cereus Count Plate (BCCP) can be used in the quantitative plating of Bacillus cereus Colonies in the food and beverage industries. Other applications are available upon request. Contact your supplier for more details.

Quantitative counting of the plate can be done by a standard colony counter or by software. All purple red colonies shall be counted regardless of the size or intensity.

Count colonies within 20-200 CFU, count all the purple red colonies.

## MicroPad Lactic Acid Bacteria Count Plate



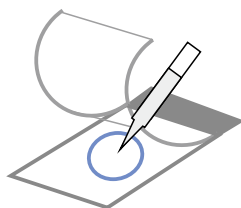
**Product Code: MCPG01425**    **25 plates / pack**

Lactic Acid Bacteria Count Plate (LABP) is a sample-ready-culture medium system which contains readymade dry medium, a cold-water-soluble gelling agent and indicator. It can be used in direct counting of lactic acid bacteria colonies after 24-48h incubation.

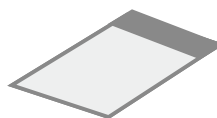
**Read the user manual carefully before test, and follow the instructions. Failure to do so may lead to inaccurate results.**



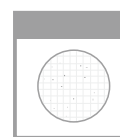
**Sample Preparation**



**Sampling**



**Incubation**



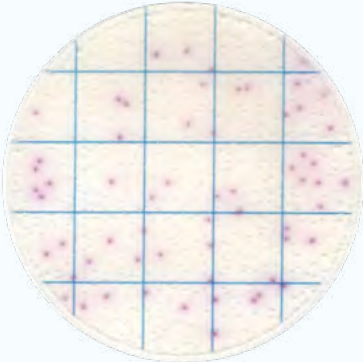
**Enumeration**

This Lactic Acid Bacteria Count Plate (LABP) can be used in the quantitative plating of Lactic Acid Bacteria Colonies in the food and beverage industries. Other applications are available upon request. Contact your supplier for more details.

Quantitative counting of the plate can be done by a standard colony counter or by software. All red colonies shall be counted regardless of the size or intensity.

Count colonies within 30-300 CFU, count all the red colonies.

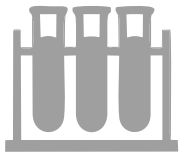
## MicroPad Salmonella Count Plate



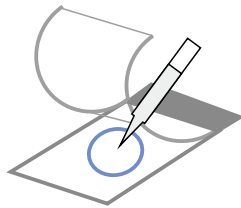
**Product Code: MCPG01525    25 plates / pack**

Salmonella Count Plate (SCP) is a sample-ready-culture medium system which contains readymade dry medium, a cold-water-soluble gelling agent and indicator. It can be used in direct counting of Salmonella colonies after 24h incubation.

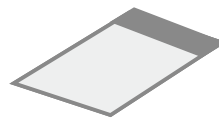
**Read the user manual carefully before test, and follow the instructions.  
Failure to do so may lead to inaccurate results.**



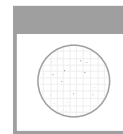
**Sample Preparation**



**Sampling**



**Incubation**

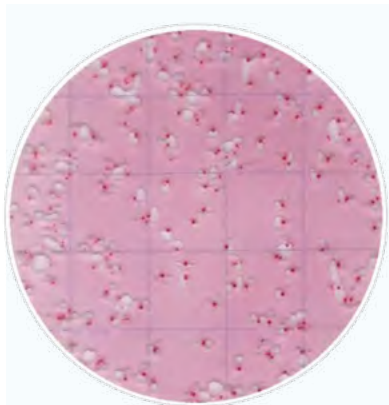


**Enumeration**

This Salmonella Count Plate (SCP) can be used in the quantitative plating of Salmonella Colonies in the food and beverage industries. Other applications are available upon request. Contact your supplier for more details. Quantitative counting of the plate can be done by a standard colony counter or by software. All purple red colonies shall be counted regardless of the size or intensity.

Count colonies within 30-200 CFU, count all the purple red colonies.

## MicroPad Enterobacteriaceae Count Plate



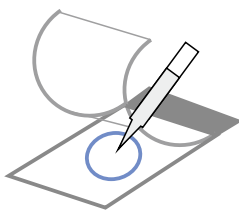
**Product Code: MCPG01625**    **25 plates / pack**

Enterobacteriaceae Count Plate (EBCP) is a sample-ready-culture medium system which contains readymade dry medium, a cold-water-soluble gelling agent and indicator. It can be used in direct counting of Enterobacteriaceae colonies after 24h incubation.

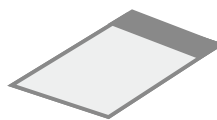
**Read the user manual carefully before test, and follow the instructions. Failure to do so may lead to inaccurate results.**



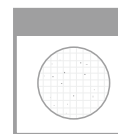
**Sample Preparation**



**Sampling**



**Incubation**




**Enumeration**

This Enterobacteriaceae Count Plate (EBCP) can be used in the quantitative plating of Enterobacteriaceae Colonies in the food and beverage industries. Other applications are available upon request. Contact your supplier for more details.

Quantitative counting of the plate can be done by a standard colony counter or by software. All red colonies shall be counted regardless of the size or intensity.

Count colonies within 15-150 CFU, count all the red colonies.

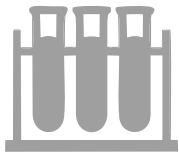
## MicroPad Geobacillus stearothermophilus Count Plate



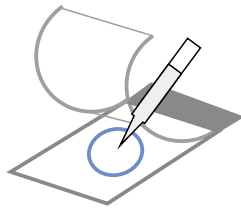
**Product Code: MCPG01725**    **25 plates / pack**

Geobacillus stearothermophilus Count Plate (GSCP) is a sample-ready-culture medium system which contains readymade dry medium, a cold-water-soluble gelling agent and indicator. It can be used in direct counting of Geobacillus stearothermophilus colonies after 36h incubation.

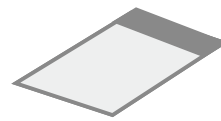
**Read the user manual carefully before test, and follow the instructions.  
Failure to do so may lead to inaccurate results.**



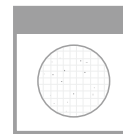
**Sample Preparation**



**Sampling**



**Incubation**



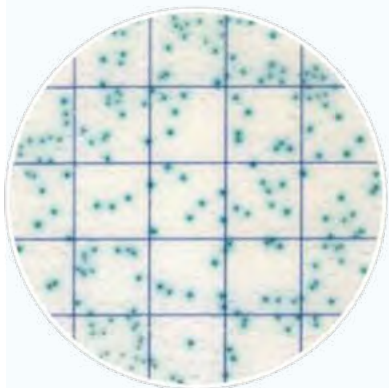
**Enumeration**

This Geobacillus stearothermophilus Count Plate (GSCP) can be used in the quantitative plating of Geobacillus stearothermophilus Colonies in the food and beverage industries. Other applications are available upon request. Contact your supplier for more details.

Quantitative counting of the plate can be done by a standard colony counter or by software. All red colonies shall be counted regardless of the size or intensity.

Count colonies within 10-150 CFU, count all the red colonies.

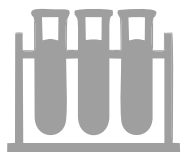
## MicroPad Enterococcus faecalis Count Plate



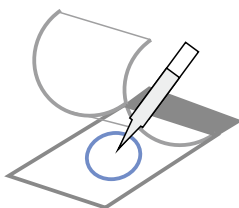
**Product Code: MCPG01825**    **25 plates / pack**

Enterococcus faecalis Count Plate (EFCP) is a sample-ready-culture medium system which contains readymade dry medium, a cold-water-soluble gelling agent and indicator. It can be used in direct counting of Enterococcus faecalis colonies after 24h incubation.

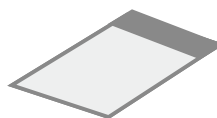
**Read the user manual carefully before test, and follow the instructions. Failure to do so may lead to inaccurate results.**



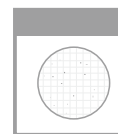
**Sample Preparation**



**Sampling**



**Incubation**



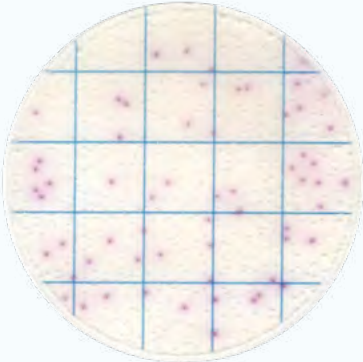
**Enumeration**

This Enterococcus faecalis Count Plate (SCP) can be used in the quantitative plating of Enterococcus faecalis Colonies in the food and beverage industries. Other applications are available upon request. Contact your supplier for more details.

Quantitative counting of the plate can be done by a standard colony counter or by software. All purple red colonies shall be counted regardless of the size or intensity.

Count colonies within 20-100 CFU, count all the dark colonies with blue halo.

## MicroPad Bacillus Psychrophilus Count Plate



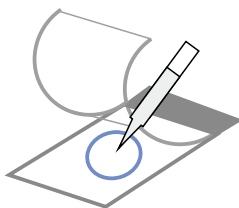
**Product Code: MCPG01925    25 plates / pack**

Bacillus Psychrophilus Count Plate (BPCP) is a sample-ready-culture medium system which contains readymade dry medium, a cold-water-soluble gelling agent and indicator. It can be used in direct counting of bacillus psychrophilus colonies after 48-60h incubation.

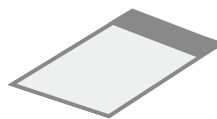
**Read the user manual carefully before test, and follow the instructions.  
Failure to do so may lead to inaccurate results.**



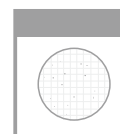
**Sample Preparation**



**Sampling**



**Incubation**



**Enumeration**

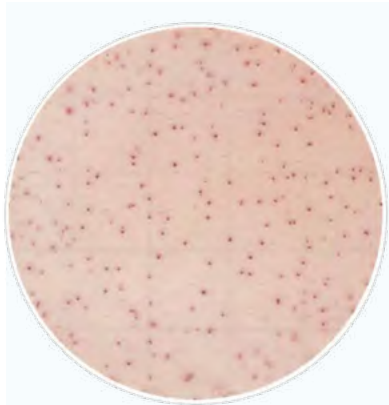
This Bacillus Psychrophilus Count Plate (BPCP) can be used in the quantitative plating of Bacillus Psychrophilus Colonies in the food and beverage industries. Other applications are available upon request. Contact your supplier for more details.

Quantitative counting of the plate can be done by a standard colony counter or by software. All red colonies shall be counted regardless of the size or intensity.

Count colonies within 10-150 CFU, count all the red colonies.

# Microbial Count Plate

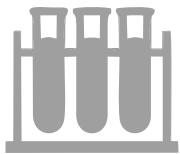
## MicroPad Aerobic Bacillus Count Plate



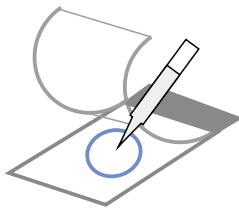
**Product Code: MCPG02425**    **25 plates / pack**

Aerobic Bacillus Count Plate (ABCP) is a sample-ready-culture medium system which contains readymade dry medium, a cold-water-soluble gelling agent and indicator. It can be used in direct counting of aerobic bacillus colonies after 24h incubation.

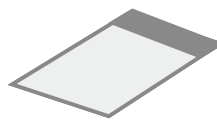
**Read the user manual carefully before test, and follow the instructions.  
Failure to do so may lead to inaccurate results.**



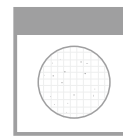
**Sample Preparation**



**Sampling**



**Incubation**



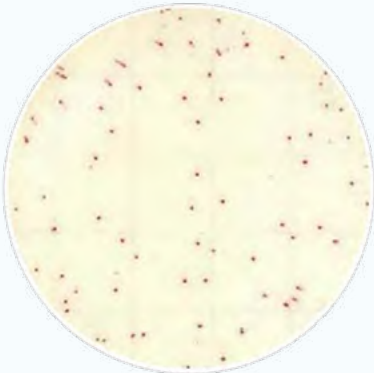
**Enumeration**

This Aerobic Bacillus Count Plate (ABCP) can be used in the quantitative plating of Aerobic Bacillus Colonies in the food and beverage industries. Other applications are available upon request. Contact your supplier for more details.

Quantitative counting of the plate can be done by a standard colony counter or by software. All red colonies shall be counted regardless of the size or intensity.

Count colonies within 10-150 CFU, count all the purple red colonies.

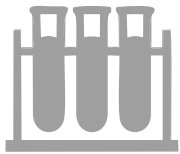
## MicroPad Shigella Count Plate



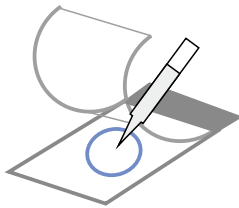
**Product Code: MCPG02525    25 plates / pack**

Shigella Count Plate (SHCP) is a sample-ready-culture medium system which contains readymade dry medium, a cold-water-soluble gelling agent and indicator. It can be used in direct counting of Shigella colonies after 24-48h incubation.

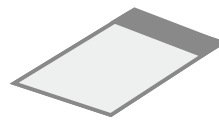
**Read the user manual carefully before test, and follow the instructions.  
Failure to do so may lead to inaccurate results.**



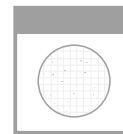
**Sample Preparation**



**Sampling**



**Incubation**



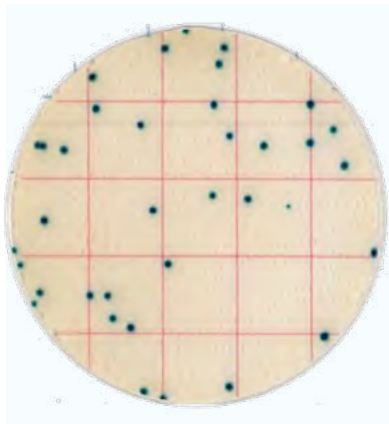
**Enumeration**

This Shigella Count Plate (SHCP) can be used in the quantitative plating of Salmonella Colonies in the food and beverage industries. Other applications are available upon request. Contact your supplier for more details.

Quantitative counting of the plate can be done by a standard colony counter or by software. All red colonies shall be counted regardless of the size or intensity.

Count all the red colonies.

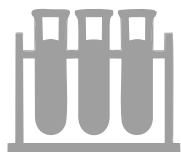
## MicroPad Listeria M. Count Plate



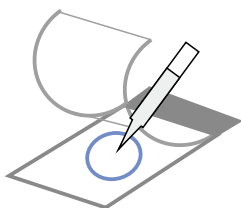
**Product Code: MCPG02625    25 plates / pack**

Listeria M. Count Plate (LMCP) is a sample-ready-culture medium system which contains readymade dry medium, a cold-water-soluble gelling agent and indicator. It can be used in direct counting of listeria monocytogenes colonies after 36h incubation.

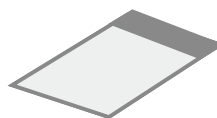
**Read the user manual carefully before test, and follow the instructions. Failure to do so may lead to inaccurate results.**



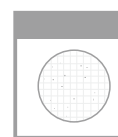
**Sample Preparation**



**Sampling**



**Incubation**



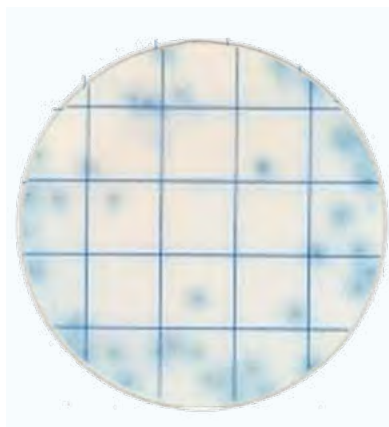
**Enumeration**

This Listeria M. Count Plate (LMCP) can be used in the quantitative plating of Listeria Monocytogenes Colonies in the food and beverage industries. Other applications are available upon request. Contact your supplier for more details.

Quantitative counting of the plate can be done by a standard colony counter or by software. All blue green colonies shall be counted regardless of the size or intensity.

Enrichment is needed before testing with this count plate.

## MicroPad E.Coli 0157 Count Plate



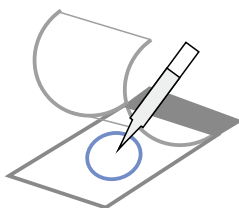
**Product Code: MCPG02725    25 plates / pack**

E. Coli 0157 Count Plate (ECOCP) is a sample-ready-culture medium system which contains ready made dry medium, a cold-water-soluble gelling agent and indicator. It can be used in direct counting of E. Coli 0157 colonies after 24h incubation.

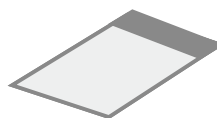
**Read the user manual carefully before test, and follow the instructions.  
Failure to do so may lead to inaccurate results.**



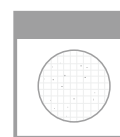
**Sample Preparation**



**Sampling**



**Incubation**

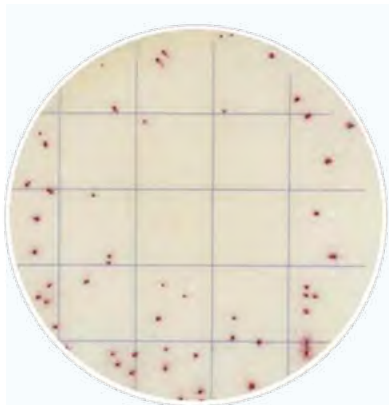


**Enumeration**

This E. Coli 0157 Count Plate (ECOCP) can be used in the quantitative plating of E. Coli 0157 Colonies in the food and beverage industries. Other applications are available upon request. Contact your supplier for more details.

Quantitative counting of the plate can be done by a standard colony counter or by software. E.Coli 0157 colonies are gray with dark-blue halo, higher concentration of colonies may lead to dark background. Please further dilute the sample for enumeration. Count the gray colonies with dark-blue halo.

## MicroPad Vibrio parahaemolyticus Count Plate



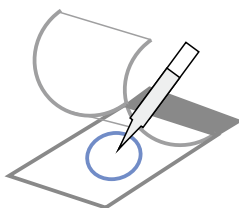
**Product Code: MCPG02825**    **25 plates / pack**

Vibrio Parahaemolyticus Count Plate (VPCP) is a sample-ready-culture medium system which contains readymade dry medium, a cold-water-soluble gelling agent and indicator. It can be used in direct counting of Vibrio Parahaemolyticus colonies after 8-18h incubation.

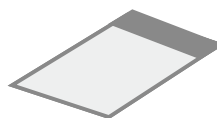
**Read the user manual carefully before test, and follow the instructions. Failure to do so may lead to inaccurate results.**



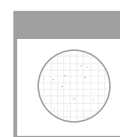
**Sample Preparation**



**Sampling**



**Incubation**



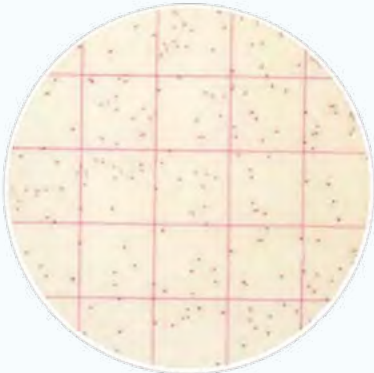
**Enumeration**

This Vibrio Parahaemolyticus Count Plate (VPCP) can be used in the quantitative plating of Vibrio Parahaemolyticus Colonies in the food and beverage industries. Other applications are available upon request. Contact your supplier for more details.

Quantitative counting of the plate can be done by a standard colony counter or by software. All red colonies shall be counted regardless of the size or intensity.

Count all the red colonies.

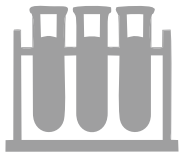
## MicroPad Psychrophilic Bacteria Count Plate



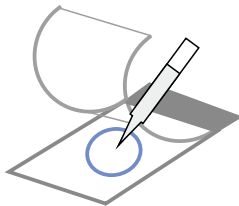
**Product Code: MCPG02925    25 plates / pack**

Psychrophilic Bacteria Count Plate (PBCP) is a sample-ready-culture medium system which contains readymade dry medium, a cold-water-soluble gelling agent and indicator. It can be used in direct counting of Psychrophilic Bacteria colonies after 28-30h incubation.

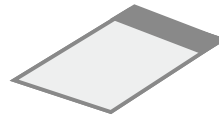
**Read the user manual carefully before test, and follow the instructions. Failure to do so may lead to inaccurate results.**



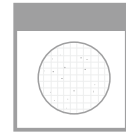
**Sample Preparation**



**Sampling**



**Incubation**



**Enumeration**

This Psychrophilic Bacteria Count Plate (PBCP) can be used in the quantitative plating of Psychrophilic Bacteria Colonies in the food and beverage industries. Other applications are available upon request. Contact your supplier for more details.

Quantitative counting of the plate can be done by a standard colony counter or by software. All red colonies shall be counted regardless of the size or intensity.

Count colonies within 10-300 CFU, count all the red colonies.

# **MilkKit**

## **Milk Rapid Test Kit**

## Milk Rapid Test Kit

World-class quality at affordable cost



MilkKit tests can be used to monitor antibiotic residues and mycotoxins, melamines, etc in milk and various food samples.

## Current Offer in Dairy Industry

### Veterinary Drug Residue Rapid Test Kit

Major veterinary antibiotics, steroids, hormones, disinfectants, detergent, etc.

### Pesticide Residue Rapid Test Kit

Important pesticides, herbicides, etc.

### Mycotoxin Rapid Test Kit

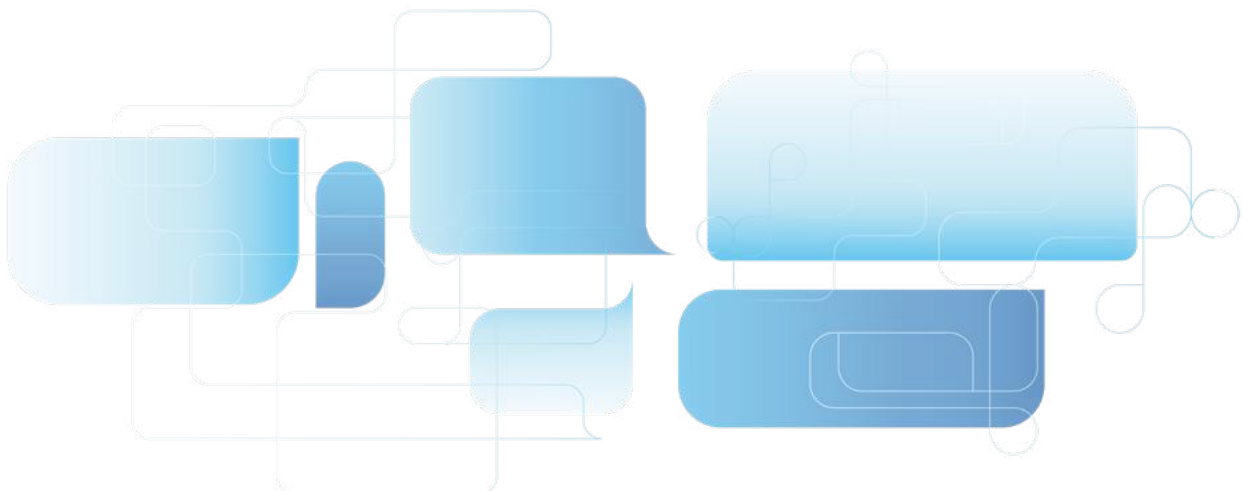
for aflatoxin M1 testing, ranging from EU MRL, USA MRL to Codex MRL, 0.5ppb, 0.05ppb, 0.3ppb, 0.4ppb, etc.

### Milk Nutrition & Milk fraud Rapid Test Kit

for testing of bovine IgG, bovine lactoferrin, vitamin, as well as testing cow milk added into goat or camel milk, etc.

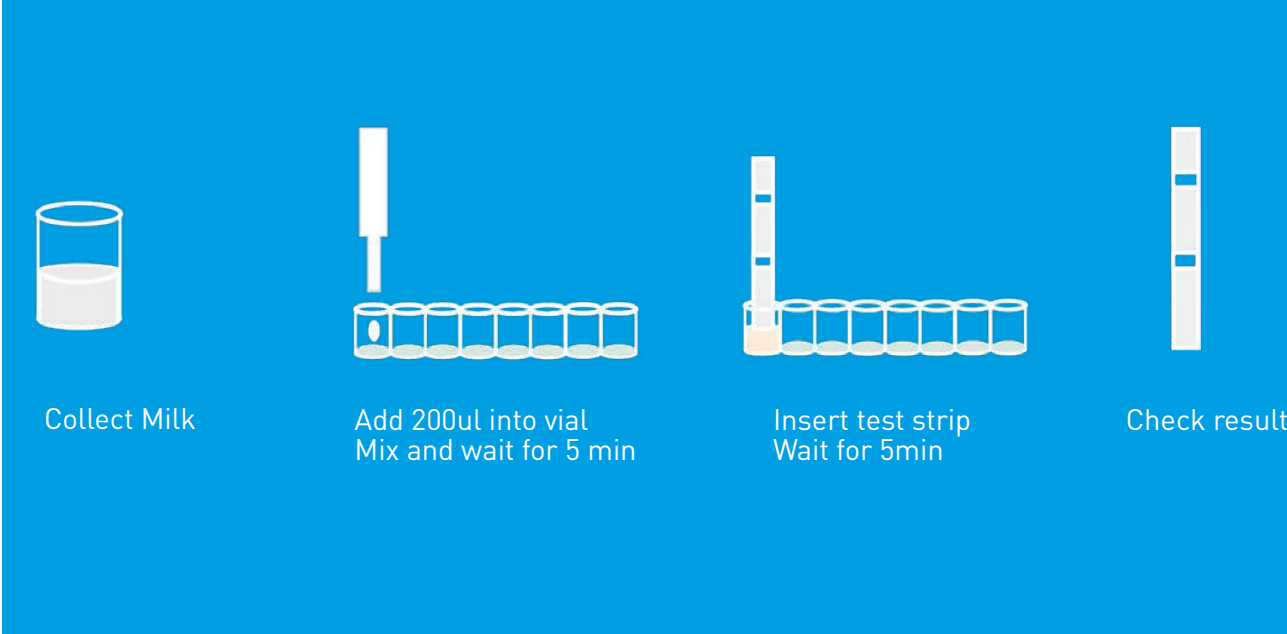
### Test Equipment for Milk Tests

from portable reader system to desktop reader system to ensure the visualize of test data and printing.



# Milk Kit Test

## General Step for milk testing



## β-lactams & tetracyclines, BT Combo Test Kit

A lateral flow rapid test kit based on receptor assay to detect multiple β-lactams & tetracyclines antibiotics in 10min.

### Ordering information

Product Code	Reaction Mode	Detection Level
TESTMIRA2002A	5'+5', room temp.	EU MRL

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## β-lactams & tetracyclines & sulfa drugs, BTS TriTest 3in1

A lateral flow rapid test kit based on receptor assay to detect multiple β-lactams & tetracyclines & sulfa antibiotics in 6min.

### Ordering information

Product Code	Reaction Mode	Detection Level
TESTMIRA0015A	3'+3', room temp.	EU MRL

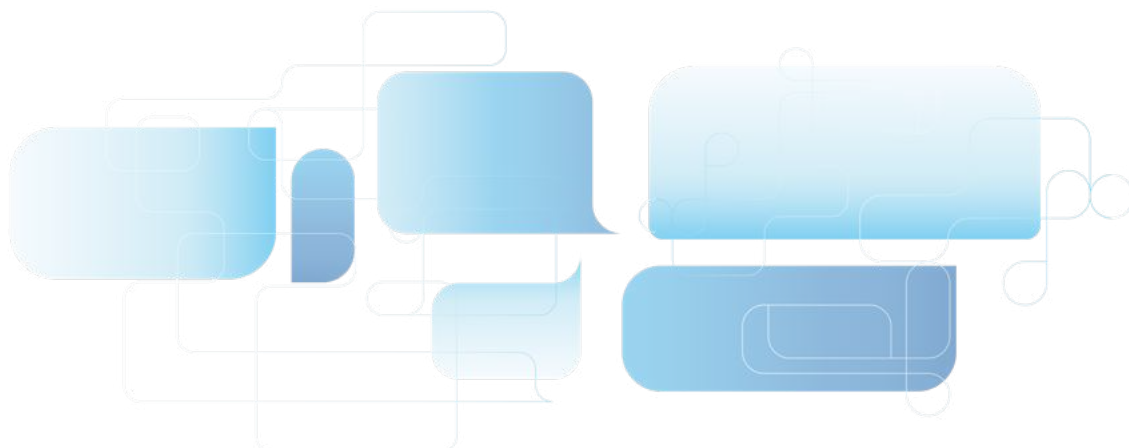
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### Kit Component

- A12 tubes of rapid tests, 8 strips per tube
- Microwell holder
- Plastic pipette or micropipette tips
- Kit instruction

### Samples

- Raw milk, UHT milk, pasteurized milk, etc.
- Water, meat, egg, honey, etc.



## $\beta$ -lactams & tetracyclines & sulfa & quinolones, BTSQ QuaTest 4in1

A lateral flow rapid test kit based on receptor assay to detect multiple  $\beta$ -lactams & tetracyclines & sulfa antibiotics in 6min.

### Ordering information

Product Code	Reaction Mode	Detection Level
TESTMIRA0029A	3'+7', room temp.	EU MRL

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## $\beta$ -lactams & tetracyclines & streptomycin & CAP, BTSC QuaTest 4in1

A lateral flow rapid test kit based on receptor assay to detect multiple beta-lactams, tetracyclines, streptomycin & chloramphenicol antibiotics in 10min.

### Ordering information

Product Code	Reaction Mode	Detection Level
TESTMIRA0018A	3'+7', room temp.	EU MRL

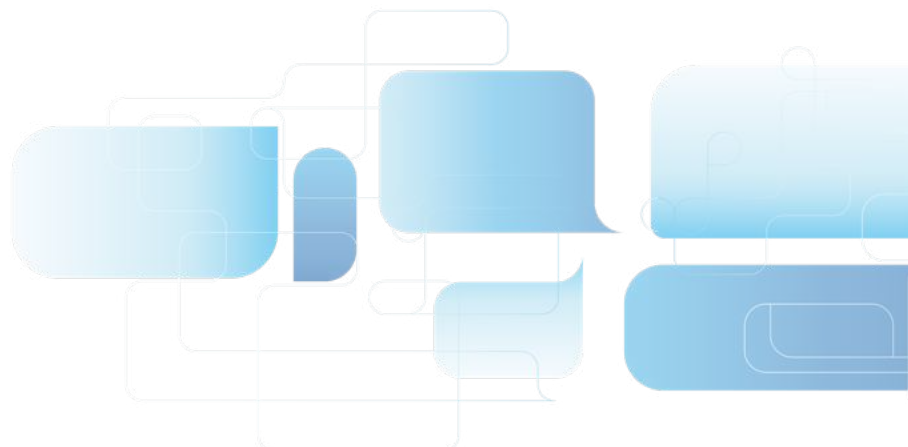
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### Kit Component

- 12 tubes of rapid tests, 8 strips per tube
- Microwell holder
- Plastic pipette or micropipette tips
- Kit instruction

### Samples

- Raw milk, UHT milk, pasteurized milk, etc.
- Water, meat, egg, honey, etc.



## Aminoglycosides, GNKS QuaTest 4in1

A lateral flow rapid test kit based on receptor assay to detect multiple gentamicin, neomycin, kanamycin & streptomycin antibiotics in 10min.

### Ordering information

Product Code	Reaction Mode	Detection Level
TESTMIRA0025A	3'+7', room temp.	EU MRL

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## Quinolones, macrolides, lincomycin, erythromycin, QMLE QuaTest 4in1

A lateral flow rapid test kit based on receptor assay to detect multiple quinolones, macrolides, lincomycin, erythromycin antibiotics in 10min.

### Ordering information

Product Code	Reaction Mode	Detection Level
TESTMIRA0024A	3'+7', room temp.	EU MRL

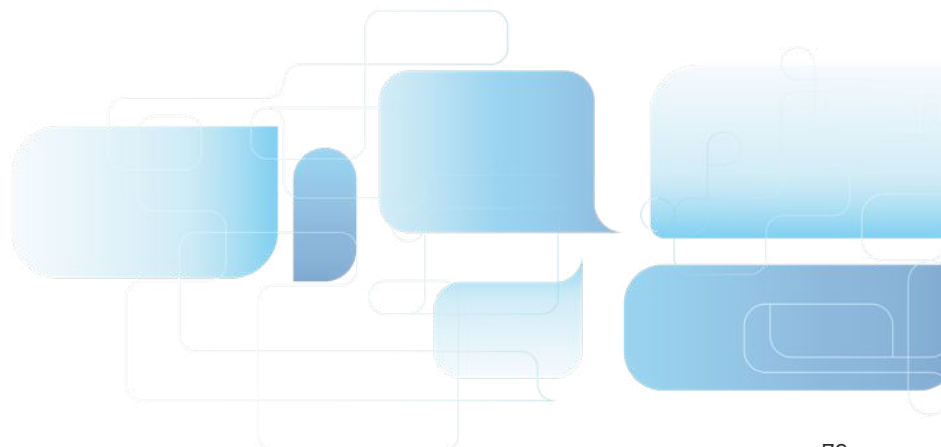
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### Kit Component

- 12 tubes of rapid tests, 8 strips per tube
- Microwell holder
- Plastic pipette or micropipette tips
- Kit instruction

### Samples

- Raw milk, UHT milk, pasteurized milk, etc.
- Water, meat, egg, honey, etc.



## Test Equipment and Devices

### Ordering information

Product Code	Product Description
TESTINR1303A	Reader Fast 2 system - the quick and smaller model
TESTINR1304A	Minipipet for test kit, 200ul
TESTINR1305A	Mini Incubator - heating block for rapid tests
TESTINR1308A	ATP fluorescence detector - ATP Reader

### Q3 system Desktop Rapid Test Reader

Ordering information: TESTINR1301A

Weight	3.0kg
Dimension	320mm x 195mm x 156mm
Wavelength	525±30nm
Precision	C.V. ≤3%
Display	6.2Inch LCD
Printer	Built-in thermal printer
Memory	4GB built-in/flash drive



### Fast 2 system Desktop Rapid Test Reader

Weight	1.0kg
Dimension	210mm x 175mm x 75mm
Wavelength	525±30nm
Precision	C.V. ≤2%
Display	3.5Inch LCD
Printer	Built-in thermal printer
Memory	50000 entries



## EOS Ketone/Glucose meter

Perfect management for ketosis



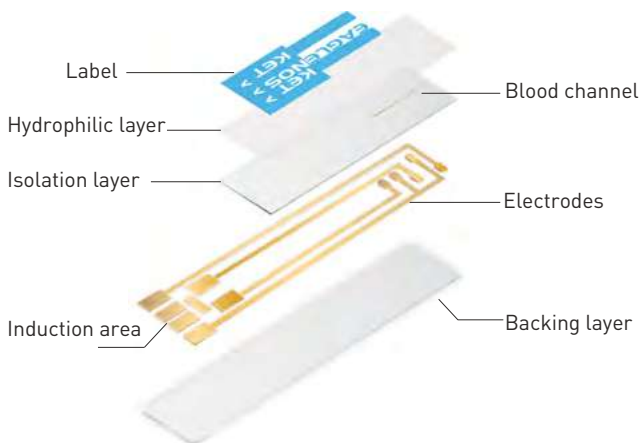
EOS Ketone/Glucose meter is the new innovation for ketone testing in cow blood. It is based on electrochemistry reaction, fast, simple and accurate. Detect Ketone in 10s with 0.8uL blood.

### Features

- High correlation with ABT product
- Wide detection range
- Fast detection speed

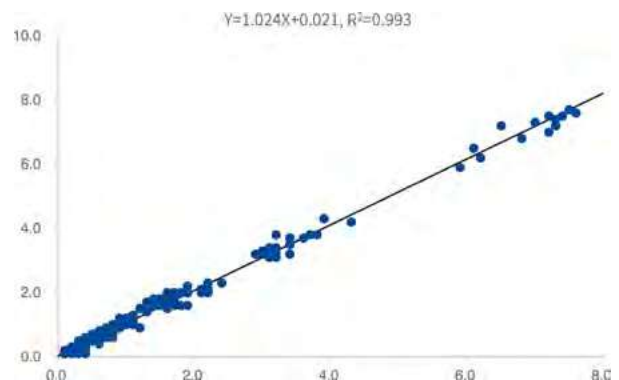
### Structure of the test strip

Multiple layers ensure the applicability of sample and the accurate result



### Comparison with other products

ketone concentration < 2.5mmol/L, SD:  $\leq \pm 0.375$ mmol/L.  
ketone  $\geq 2.5$ mmol/L, SD:  $\leq \pm 15\%$ .



Product Code	TESTINR1309A
Unit Size	16 cm*10.5cm*3.5cm
Principle	Electrochemical biosensor
Applied Sample	Whole blood, 0.8 uL
Measuring Time	Ketone 10s, Glucose 5s
Detection Range	Ketone 0.1-8.0mmol/L, Glucose, 0.6-3.3mmol/L
HCT Range	Ketone 30 - 60 %, Glucose 10% - 65%
Specificity	100%
Accuracy	>99.9% compared with ABT instrument
Shipment	Room temperature

## Petri Dishes, Plastic Material

- ◆ Non-cytotoxic virgin polystyrene, excellent optical clarity
- ◆ Engineered for optimum flatness to provide uniform agar thickness
- ◆ Single or more vents are available: no-vent for anaerobic and long-term work, single vent for limiting gas exchange, multi vents for improving gas exchange



### General petri Dishes

90 and 150mm Petri dishes are manufactured in accordance with standard ISO 24998:2008, ideal for use with most automatic filling machine.

Product Code	Description	Quantity
PETRIDPC035151NVS	Ø 35×15 mm, 1 Room	10 pcs / polybag, 300 pcs / carton
PETRIDPC055151NVS	Ø 55×15 mm, 1 Room	10 pcs / polybag, 1,000 pcs / carton
PETRIDPC0601613VA	Ø 60×16mm, 1 Room / 3 vents	10 pcs / polybag, 1,200 pcs / carton
PETRIDPC070151NVS	Ø 70 × 15 mm, 1 Room	20 pcs / polybag, 800 pcs / carton
PETRIDPC0901613VA	Ø 90 × 16 mm, 1 Room / 3 vents	10 pcs / polybag, 500 pcs / carton
PETRIDPC0902013VS	Ø 90 × 20 mm, 1 Room / 3 vents	10 pcs / polybag, 500 pcs / carton
PETRIDPC1501513VS	Ø 150 × 15 mm, 1 Room / 3 vents	10 pcs / polybag, 200 pcs / carton

### Compartmented Dishes

Ideal for different media on same dish, or meet the requirement of saving incubator space.

Product Code	Description	Quantity
PETRIDPC0901523VS	Ø 90 × 15mm, 2 Rooms / 3 vents	10 pcs / polybag, 500 pcs / carton
PETRIDPC0901533VS	Ø 90 × 15mm, 3 Rooms / 3 vents	10 pcs / polybag, 500 pcs / carton

### Square Dishes

Noncompartmented, ideal for antibiotic sensitivity testing.

Product Code	Description	Quantity
PETRIDPS130151NVS	Ø 130 × 130 × 15 mm, 1 Room	10 pcs / polybag, 150 pcs / carton

### Contact Plates

10×10mm counting net, alphanumeric, facilitates colony counting and locating.

Product Code	Description	Quantity
PETRIDPC0651513VS	Ø 65 × 15 mm, 1 Room / 3 vents	10 pcs / polybag, 1,000 pcs / carton

## Sterile Petri Dish with Absorbent Pad

The sterile petri dish with absorbent pads is ideal for culturing micro-organisms on either agar or broth based media. Designed to accommodate 47 mm diameter membrane filters.



### Petri dishes

- Sterile packing
- Designed to accommodate Ø 47mm membrane filters
- Seal tight and are stackable for incubation
- Reduce the workload and risk of across contamination

### Absorbent Pads

- Made of pure cellulose
- Use together with the Ø 50mm Petri dishes
- Good absorption performance, absorbing the liquid media quickly and spread evenly.

### Applications

- Consumables for microbial test

### Technical Parameters

Diameter	Packaging	Sterilization method
50mm	25pcs/package	EO

### Ordering information

Product Code	Description
PETRIDPT050111WPS	Petri Dishes, 50mm, 11mm, with absorbent pad, Sterile



## Plastic Loops STERILE

Disposables for collection and inoculation by streaking or puncturing method

- Smooth surface, guarantee the even and fluent streaking
- Color-coded sizes for easy identification
- Polygonal shaft is easy to grasp, operate and control it's direction
- Rigid and flexible loops available upon requests
- Supplied with Individual peel pack (easy peel-open) and Zip-lock pack (tamperproof and re-sealable), eliminates the risk of contamination



Packing:

Type A: 20pcs/zip-lock pack, 1,000pcs/dispenser box, 10,000pcs/carton

Type B: 10pcs/zip-lock pack, 1,000pcs/dispenser box, 10,000pcs/carton

Type C: 5pcs/zip-lock pack, 500pcs/dispenser box, 5,000pcs/carton

Type D: individual peel pack, 500pcs/dispenser box, 5,000pcs/carton

ZIP-LOCK-PACK



Hexagonal shaft with stripes

### Rigid Loops

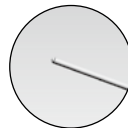
PS material, hexagonal shaft with stripes, ideal for collection of single colony and inoculation by puncturing



1µL Loop



10µL Loop



Needle

#### Color: Neutral

Product Code	Packing
CELCUCG2121X1001S	Type A
CELCUCG2121X1002S	Type B
CELCUCG2121X1003S	Type C
CELCUCG2121X1004S	Type D

#### Color: Blue

Product Code	Packing
CELCUCG2121X1005S	Type A
CELCUCG2121X1006S	Type B
CELCUCG2121X1007S	Type C
CELCUCG2121X1008S	Type D

#### Color: Violet

Product Code	Packing
CELCUCG2121X1009S	Type A
CELCUCG2121X1010S	Type B
CELCUCG2121X1011S	Type C
CELCUCG2121X1012S	Type D

### Flexible Loops

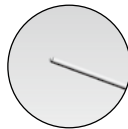
HIPS material, hexagonal shaft with stripes, ideal for inoculation in gel surface by streaking



1µL Loop



10µL Loop



Needle

#### Color: White

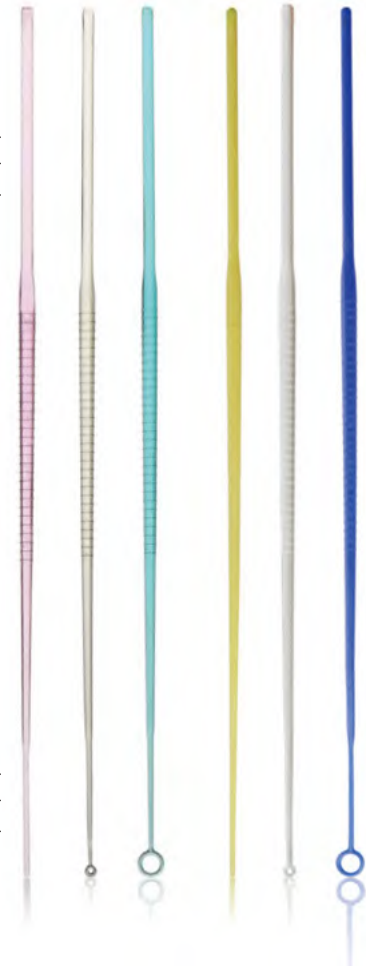
Product Code	Packing
CELCUCG2121X2001S	Type A
CELCUCG2121X2002S	Type B
CELCUCG2121X2003S	Type C
CELCUCG2121X2004S	Type D

#### Color: Dark blue

Product Code	Packing
CELCUCG2121X2005S	Type A
CELCUCG2121X2006S	Type B
CELCUCG2121X2007S	Type C
CELCUCG2121X2008S	Type D

#### Color: Yellow

Product Code	Packing
CELCUCG2121X2009S	Type A
CELCUCG2121X2010S	Type B
CELCUCG2121X2011S	Type C
CELCUCG2121X2012S	Type D



## Plastic Loops STERILE

Disposables for collection and inoculation by streaking or puncturing method

- Smooth surface, guarantee the even and fluent streaking
- Color-coded sizes for easy identification
- Polygonal shaft is easy to grasp, operate and control it's direction
- Rigid and flexible loops available upon requests
- Supplied with Individual peel pack (easy peel-open) and Zip-lock pack (tamperproof and re-sealable), eliminates the risk of contamination



Packing:  
 Type A: 20pcs/zip-lock pack, 1,000pcs/dispenser box, 10,000pcs/carton  
 Type B: 10pcs/zip-lock pack, 1,000pcs/dispenser box, 10,000pcs/carton  
 Type C: 5pcs/zip-lock pack, 500pcs/dispenser box, 5,000pcs/carton  
 Type D: individual peel pack, 500pcs/dispenser box, 5,000pcs/carton



### Rigid Loops

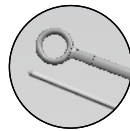
AS material, hexagonal shaft with stripes, ideal for collection single colony and inoculation by puncturing



**1µL Loop+ Incorporated needle**



**10µL+1µL Loop**



**10µL Loop+ Incorporated needle**

**Color: Neutral**

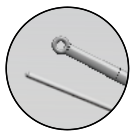
**Color: Yellow**

**Color: Blue**

Product Code	Packing	Product Code	Packing	Product Code	Packing
CELCUCG2121X0041S	Type A	CELCUCG2121X0049S17	Type A	CELCUCG2121X0045S02	Type A
CELCUCG2121X0042S	Type B	CELCUCG2121X0050S17	Type B	CELCUCG2121X0046S02	Type B
CELCUCG2121X0043S	Type C	CELCUCG2121X0051S17	Type C	CELCUCG2121X0047S02	Type C
CELCUCG2121X0044S	Type D	CELCUCG2121X0052S17	Type D	CELCUCG2121X0048S02	Type D

### Flexible Loops

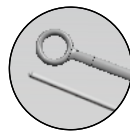
ABS material, quadrangled shaft with stripes, ideal for collection single colony and inoculation by puncturing



**1µL Loop+ Incorporated needle**



**10µL+1µL Loop**



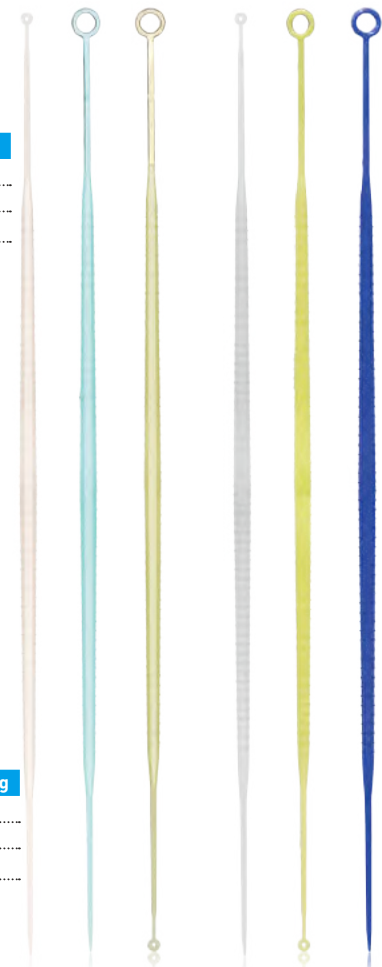
**10µL Loop+ Incorporated needle**

**Color: Neutral**

**Color: Yellow**

**Color: Blue**

Product Code	Packing	Product Code	Packing	Product Code	Packing
CELCUCG2121X0053S	Type A	CELCUCG2121X0061S17	Type A	CELCUCG2121X0057S02	Type A
CELCUCG2121X0054S	Type B	CELCUCG2121X0062S17	Type B	CELCUCG2121X0058S02	Type B
CELCUCG2121X0055S	Type C	CELCUCG2121X0063S17	Type C	CELCUCG2121X0059S02	Type C
CELCUCG2121X0056S	Type D	CELCUCG2121X0064S17	Type D	CELCUCG2121X0060S02	Type D



## Cell Spreaders

Designed for spreading and dispersing liquids onto the surface of an agar plate. Made of PP material, autoclavable, Supplied with triangle shaped and T shaped

### PACKING:

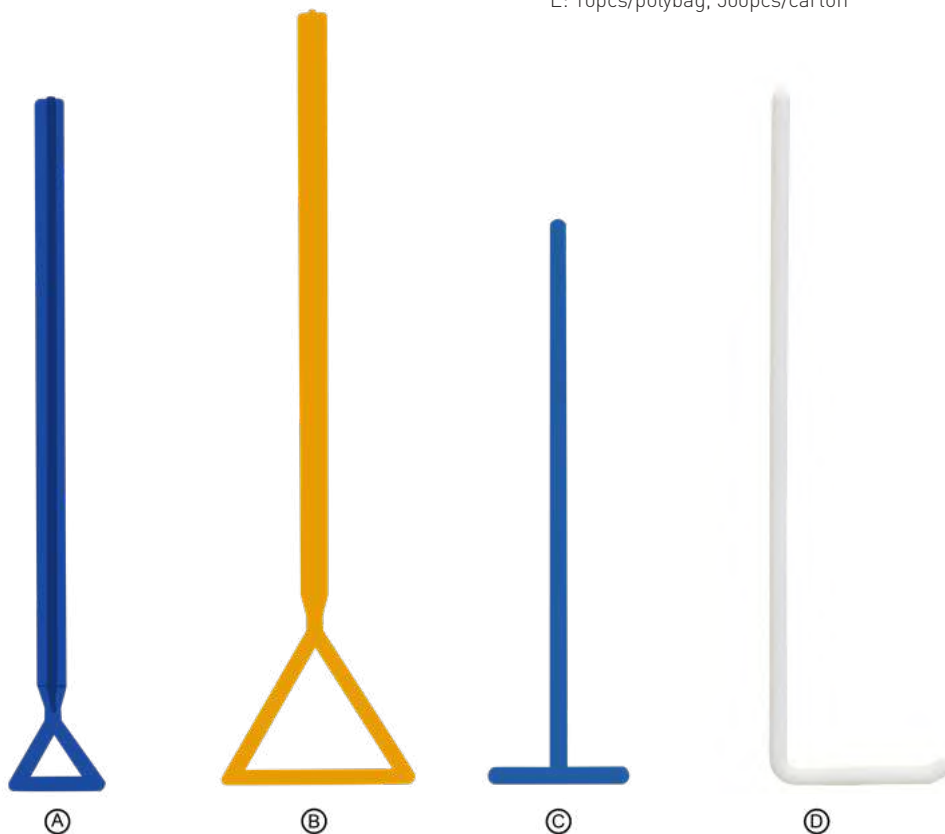
A: Individual Peel Pack, 100pcs/dispenser box, 1,000pcs/carton

B: 10pcs/polybag, 1000pcs/carton

C: 10pcs/polybag, 400pcs/carton

D: Individual Peel Pack, 400pcs/dispenser box, 4,000pcs/carton

E: 10pcs/polybag, 500pcs/carton



### A 215x30mm

Product Code	Sterile	Color	Packing
CELCUCG2400X0001X02A	Gamma	Blue	Type A
CELCUCG2400X0002X02A	-	Blue	Type B

### C T Shape, 140x35mm

Product Code	Sterile	Color	Packing
CELCUCG2400X0005X02A	Gamma	Blue	Type D
CELCUCG2400X0006X02A	-	Blue	Type E

### B 240x60mm

Product Code	Sterile	Color	Packing
CELCUCG2400X0003X17A	Gamma	Yellow	Type A
CELCUCG2400X0004X17A	-	Yellow	Type B

### D L Shape, 149x40mm

Product Code	Sterile	Color	Packing
CELCUCG2400X0011X16A	E.O.	White	Type D

## Dehydrated Culture Media

### 01 Total Viable Count (TVC)

Product Code	Product	Description	Qty.
MIMEB1818FA	Plate Count Agar (PCA) (Standards Methods Agar)	Used for enumeration of viable microorganisms. (NMKL)	500 g
MIMEB1819FA	Plate Count Agar (PCA) (Standards Methods Agar)	Used for enumeration of viable microorganisms. (NMKL)	1000g
MIMEB1836FA	Nutrient Broth (NB)	A general-purpose growth medium for bacteria.	500 g
MIMEB1837FA	Nutrient Broth (NB)	A general-purpose growth medium for bacteria	1000g
MIMEB1826FA	Nutrient Agar (NA)	A general-purpose medium for the growth of a wide variety of microorganisms. (AFNOR, AOAC, BSI, FDA, ISO, NMKL)	500 g
MIMEB1827FA	Nutrient Agar (NA)	A general-purpose medium for the growth of a wide variety of microorganisms. (AFNOR, AOAC, BSI, FDA, ISO, NMKL)	1000g
MIMEB1833FA	Tryptone Soya Agar (TSA)	For enumerating and enriching nonfastidious or fastidious bacteria.	500 g
MIMEB1856FA	Tryptic Soy Broth (TSB) (Soybean Casein Digest)	Used for cultivation of a wide variety of nonfastidious microorganisms. (USP)	500 g

### 02 Coliforms, Escherichia coli (E. coli), fecal coliforms, and other intestinal bacteria

Product Code	Product	Description	Qty.
MIMEB1838FA	Lauryl Sulfate Tryptose Broth (LST)	Used for detecting Coliform bacteria and faecal coliforms by the multiple-tube fermentation technique.	500 g
MIMEB1839FA	Lauryl Sulfate Tryptose Broth (LST)	Used for detecting Coliform bacteria and faecal coliforms by the multiple-tube fermentation technique.	1000g
MIMEB1820FA	Violet Red Bile Glucose Agar (VRBA)	Used for selective and differential isolation of gram-negative bacilli. (USP)	500 g
MIMEB1821FA	Violet Red Bile Glucose Agar (VRBA)	Used for selective and differential isolation of gram-negative bacilli. (USP)	1000g
MIMEB1846FA	EC Broth	Used for detection of coliform bacteria at 37°C and Escherichia coli at 44.5°C. (BAM, EPA, SMWW)	500 g
MIMEB1828FA	MacConkey Agar (MAC)	Used for selective and differential isolation of gram-negative bacilli. (BAM, COMPF, SMWW, USP)	500 g
MIMEB1853FA	Eosin-Methylene Blue Agar (EMB) (Levine Agar)	Used for isolation and differentiation of Enterobacteriaceae.	500 g
MIMEB1851FA	Lactose Bile Fermentation Broth	Used for the detection of coliform bacteria in water, foods and dairy products. (AOAC, BAM, COMPF, EPA, USDA, USP)	500 g
MIMEB1852FA	Lactose Bile Fermentation Broth	Used for the detection of coliform bacteria in water, foods and dairy products. (AOAC, BAM, COMPF, EPA, USDA, USP)	1000g
MIMEB1830FA	Brain Heart Infusion Broth (BHI)	A highly nutritious medium for the growth of fastidious organisms, and suitable for blood cultures. (FDA, NMKL, USDA)	500 g

### 03 Yeast and mold and other fungi

Product Code	Product	Description	Qty.
MIMEB1823FA	Rose Bengal Agar	Used for selective isolation and enumeration of yeast, and fungi from environmental samples and food.	500 g
MIMEB1824FA	Rose Bengal Agar	Used for selective isolation and enumeration of yeast, and fungi from environmental samples and food.	1000g

## Dehydrated Culture Media

### 04 Salmonella

Product Code	Product	Description	Qty.
MIMEB1840FA	Buffered Peptone Water (BPW)	A pre-enrichment medium for use prior to selective enrichment for the isolation of Salmonella spp. from foods. (AFNOR, BSI, IDF, NMKL)	500 g
MIMEB1842FA	Buffered Peptone Water (BPW)	A pre-enrichment medium for use prior to selective enrichment for the isolation of Salmonella spp. from foods. (AFNOR, BSI, IDF, NMKL)	10000g
MIMEB1841FA	Buffered Peptone Water (BPW)	A pre-enrichment medium for use prior to selective enrichment for the isolation of Salmonella spp. from foods. (AFNOR, BSI, IDF, NMKL)	1000g
MIMEB1849FA	Selenite Cystine Broth	A selective enrichment broth for isolation of Salmonella spp.	500 g
MIMEB1844FA	Tetrathionate Broth Base (TTB)	A selective enrichment medium for use with iodine for the recovery of Salmonella spp	1000g
MIMEB1843FA	Tetrathionate Broth Base (TTB)	A selective enrichment medium for use with iodine for the recovery of Salmonella spp.	500 g
MIMEB1831FA	Bismuth Sulfite Agar (BS)	Used for selective isolation of Salmonellae from faeces, urine, sewage and other materials.	500 g
MIMEB1860FA	Hektoen Enteric (HE) Agar	A differential selective medium for the isolation of Shigella and Salmonella species. (AFNOR, ISO, NMKL)	500 g
MIMEB1829FA	Triple Sugar Iron (TSI) Agar	Used for the differentiation of microorganisms on the basis of dextrose, lactose and sucrose fermentation and hydrogen sulfide production.	500 g
MIMEB1834FA	Xylose Lysine Desoxycholate (XLD) Agar	Used for selective isolation of Gramnegative bacteria, especially for Salmonella and Shigella. (ISO, FDA, EP, USP)	500 g

### 05 Staphylococcus aureus

Product Code	Product	Description	Qty.
MIMEB1847FA	7.6% Sodium Chloride Broth	Used for the selective enrichment of Staphylococcus aureus and other salt-tolerant bacteria.	500 g
MIMEB1848FA	7.6% Sodium Chloride Broth	Used for the selective enrichment of Staphylococcus aureus and other salt-tolerant bacteria	1000g
MIMEB1835FA	Baird-Parker Agar Base	A selective medium for the isolation and enumeration of coagulase positive staphylococci. Do not use with RPF Supplement. (AFNOR, AOAC, BSI, EP, IDF, ISO, NMKL, USDA)	500 g
MIMEB1830FA	Brain Heart Infusion Broth (BHI)	A highly nutritious medium used for the growth of fastidious organisms, and suitable Used for blood cultures. (FDA, NMKL, USDA)	500 g
MIMEB1856FA	Tryptic Soy Broth (TSB) (Soybean Casein Digest)	Used for the cultivation of a wide variety of nonfastidious microorganisms. (USP)	500 g

### 06 Listeria monocytogenes

Product Code	Product	Description	Qty.
MIMEB1825FA	Listeria Enrichment Broth Base (UVM Formulation)	A two-step selective enrichment (USDA-FSIS) method.	500 g
MIMEB1850FA	PALCAM Agar Base	A selective and diagnostic medium used for the detection of Listeria monocytogenes. (AFNOR, IDF, NMKL)	500 g
MIMEB1822FA	Listeria Chromogenic Medium	Used for chromogenic culture of Listeria and Listeria monocytogenes.	1000 mL

## Dehydrated Culture Media

### 07 Shigella

Product Code	Product	Description	Qty.
MIMEB1845FA	Gram Negative Enrichment Broth (GN Broth)	Used for the selective enrichment of gram-negative microorganisms, especially Salmonella and Shigella. (USDA)	500 g
MIMEB1834FA	Xylose Lysine Desoxycholate (XLD) Agar	Used for selective isolation of Gramnegative bacteria, especially for Salmonella and Shigella. (ISO, FDA, EP, USP)	500 g
MIMEB1828FA	MacConkey Agar (MAC)	Used for selective and differential isolation of gram-negative bacilli. (BAM, COMPF, SMWW, USP)	500 g
MIMEB1829FA	Triple Sugar Iron (TSI) Agar	Used for the differentiation of microorganisms on the basis of dextrose, lactose and sucrose fermentation and hydrogen sulfide production.	500 g
MIMEB1826FA	Nutrient Agar (NA)	A general-purpose medium used for the growth of a wide variety of microorganisms. (AFNOR, AOAC, BSI, FDA, ISO, NMKL)	500 g

### 08 Diarrhoeagenic Escherichia coli

Product Code	Product	Description	Qty.
MIMEB1836FA	Nutrient Broth (NB)	A general-purpose growth medium for bacteria.	500 g
MIMEB1826FA	Nutrient Agar (NA)	A general-purpose medium used for the growth of a wide variety of microorganisms. (AFNOR, AOAC, BSI, FDA, ISO, NMKL)	500 g
MIMEB1828FA	MacConkey Agar (MAC)	Used for selective and differential isolation of gram-negative bacilli. (BAM, COMPF, SMWW, USP)	500 g
MIMEB1853FA	Eosin-Methylene Blue Agar (EMB) (Levine Agar)	Used for isolation and differentiation of Enterobacteriaceae.	500 g

### 09 Vibrio

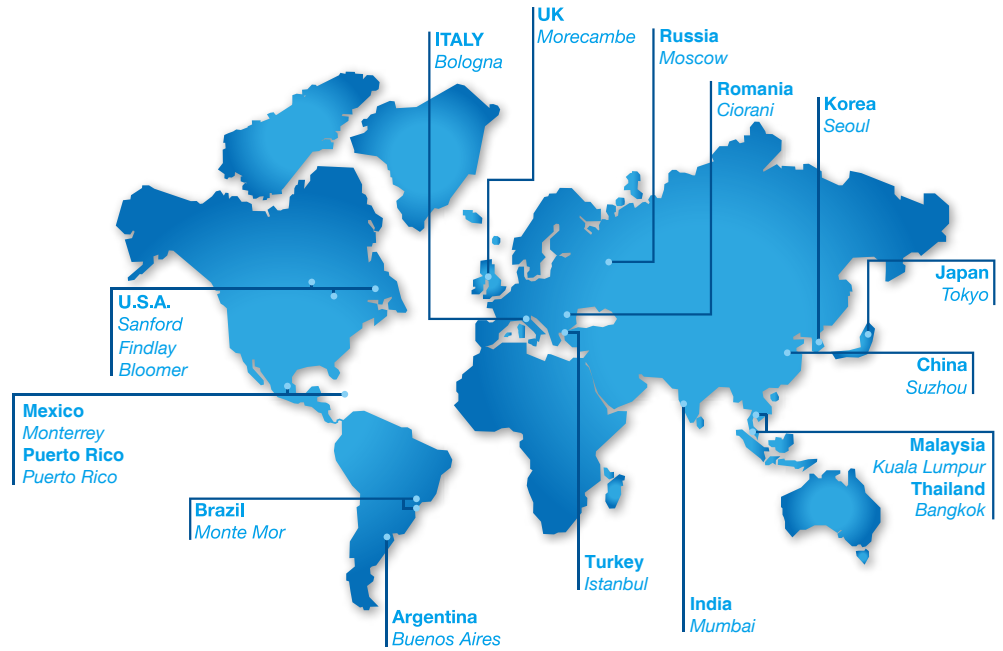
Product Code	Product	Description	Qty.
MIMEB1858FA	3% Sodium Chloride Alkaline Peptone Water	Used for enrichment of Vibrio parahaemolyticus.	500 g
MIMEB1859FA	Thiosulfate Citrate Bile Salts Sucrose (TCBS)	Used for selective isolation of enteropathogenic vibrios, especially for Vibrio cholerae and Vibrio parahaemolyticus	500 g

### 10 Other Application

Product Code	Product	Description	Qty.
MIMEB1856FA	Tryptic Soy Broth (TSB) (Soybean Casein Digest)	Used for the cultivation of a wide variety of nonfastidious microorganisms. (USP)	500 g

### 11 Large-Scale Products

Product Code	Product	Description	Qty.
MIMEB1842FA	Buffered Peptone Water	A pre-enrichment medium for use prior to selective enrichment for the isolation of Salmonella spp. from foods. (AFNOR, BSI, IDF, NMKL)	10 KG



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