

Sterilized Diluents







Need no preparation

Pro·media Diluents are sterilized and disposable.

Ready to use and Easy to use

Required volume is filled in a cup or container, just open to use.

Choose among six types depending on purpose

Serial diluent, 90ml, 225ml, 1000ml, 5000ml of PBS, and 225ml Alkaline peptone

- Storable at room temperature
- Specifications are subject to be changed for enhancement, with out notice.



Operation

MT-11:9ml of PBS in a cup for serial dilution.

- 1. Sterilize the aluminum lid with alcohol and a flame.
- 2. Make two holes by an opener (Option. Code No.: OS-01) on the aluminum of each cups.

Two holes are one for "sample inlet" and the other for "sample suction" to avoid contamination.

Point> The rest of cups which aluminum lid is unopened can be use next. **Note>** When you use it, please sterilize it with this way before.

MV2-90:90ml of PBS in a bottle for 10g specimen

- 1. Sterilize the aluminum lid with alcohol.
- 2. Open the aluminum lid and the entire PBS in a sterilized homogenize bag or lifter bag which has 10g specimen in it.
- 3. Use it as the 10 times of diluted sample, after homogenize by a homogenizer.
- <Useful example:> In case of liquid or powdery specimen

Open the aluminum lid after sterilize with alcohol, put the specimen into MV2-90 bottle directly, then shake it with keeping the aluminum lid by fingers. (Refer to the right photo)

MV-225: 225ml of PBS in a bottle for 25g specimen

MV-225AP: 225ml of Alkaline peptone in a bottle for 25g for Vibrio parahemolyticus test specimen. Operation for MV-225 and MV-225AP is as same as MV2-90

INTV2-1000:1,000ml of PBS in a bottle for Dilution system "DT cube". Sterilize the cap with alcohol before connect DT cube.





Separate-reconnect-able cup





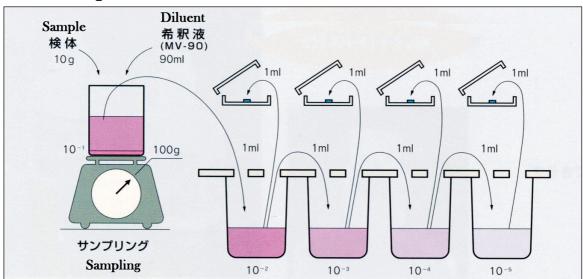
Useful example:put specimen into a bottle and shake.





MV2-1000 connecting image

Preparation and Serial dilution with MT-11



Code No.	Specifications	Specifications			
MT-11	PBS-0.9% NaCl (Phosphate Buffered Saline)	9ml for serial dilution	1ml	128 cup	Cup:PP, Lid:Aluminum
MV2-90	Formula (g/1000ml pure water)	90ml for 10 times dilution	10g	40 pc	Bottle:PE, Lid:Aluminum
MV-225	Sodium chloride (NaCl) 0.85g	225ml for 10 times dilution	225g	40 pc	Bottle:PE, Lid:Aluminum
MV2-1000	Disodium hydrogenphosphate 12-water (Na₂HPO₄ • 12H₂O)···0.0785g	1,000ml for dilution system		10 pc	Bottle:PE, Cap:PP
MV-5000	Potassium dihydrogenphosphate (KH ₂ PO ₄) ······ 0.0127g	5,000ml for dilution system		2 pc	Bottle:PE, Cap:PP
MV-225AP	Alkaline peptone-2.0% Nacl	225ml for 10 times dilution of Vibrio parahemolyticus	225g	40 pc	Bottle:PE, Lid:Aluminum

Specifications are subject to be changed for enhancement, with out notice.



Enzyme substrates broth for coliform group and *E.coli* test simultaneously

Sodium Dodecyl sulfate X-GAL+MUG Broth

Listed in "Standard Methods of Analysis in Food Safety Regulation 2004"



- Need no preparation
 - No Durham tubes nor water thermostat are required. Ready made sterilized kit saves your preparation time, such as autoclaving nor filling.
- Room temperature storable

saves your refrigerator space.

- Osimultaneous test available
 Coliform group turns to blue by X-GAL and E.coli fluorescence by MUG at 24 hours. No need EMB test.
- Specifications are subject to be changed for enhancement, with out notice.





BL-02

Paper disc

Code No.	Specifications	Qtty/box
XM-30	10ml for 1ml sample	128cup
XM-31	Double density 10ml for 10ml sample	128cup
XM-32	Double density 5ml for 5ml sample	128cup
XM0001	8.5g/AL bag (preparation use)	20bag
BL-02	Black light 366nm for E.coli test	1pc
OS-01	Opener for XM-30, XM-31, XM-32	1pc
IND0101	Paper disc for Indole test	100pc
GLU0101	Paper disc for β -glucuronidase test	100pc



How to use

- Flame the surface of the aluminum sheet. It is not needed just after open the shrink-pack.
- Make a hole on the surface of the aluminum sheet with an opener (OS-01) or a pipette.
- Put sample into a cup through this hole.
- **<Sample volume>** XM-30 : Iml, XM-31 : 10ml, MX-32 : 5ml 4) Incubate it at 36℃ ± 1℃ for 24 hours.
- 4-cup-train of XM-30, XM-31, MX-32 are able to separate and reconnect, the unopened cups can be used next time.
- After use, sterilize before scrap.
- Use XM0001 after preparation. Put broth into test tube and sterilize.





Make a hole with OS-01

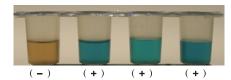
Put sample in

Technical information

Coliform group positive β -Galactosidase, an indicator of coliform group, is lactose fermentation enzyme which exists in coliform group that lactose is fermented. The enzyme substrate X-GAL is hydrolyzed by this lactose fermentation enzyme, and forms 5,5-Dibromo-4,4-dichloro indigo, thus turning blue \sim blue-violet.

<Note> Sample which has a large quantity of lactic acid bacteria will be a case to show a false-positive.

X-GAL

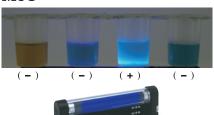


Result

E.coli positive

 β -Glucuronidase, an indicator of E.coli, is a peculiar enzyme present only in intestinal bacteria except Salmonella and Shigella, and 95% of *E.coli* has this enzyme. When this β -glucuronidase is hydrolyzed by the enzyme substrate MUG, 4-Methylumbeliferon disengages and decomposes, then shows fluorescence with irradiating by UV light (wevlength: 366nm). This fluorescence can be observed under indoor light.

MUG



Coliform group reaction X-GAL(Colorless) Oxidation reaction 5,5-Dibromo-4,4-dichloro indigo (Blue)

Reaction

Indole test

Tryptophanase activity or the ability to form indole from tryptophan is present in 95% E.coli strain. The indole test is an auxiliary test for detecting about 5% β -Glucuronidase-negative E.coli rarely present.

<Note> It shows positive in case that the other indole production bacteria exist or coexist with E.coli.

Indole



Indole vaporized reacts to the paper disc which mpregnated p-Dimethylamino benzoic aldehyde and changes color into light-violet.



B-Glucuronidase reacts to the paper disc which impregnated X-GLUC and turns into blue.

E.coli reaction MUG (Colorless) β-Glucuronidase Glucuronic acid 4-Methylumbelliferon WW UV irradiation Wavelength: 460nm

Ingredient
<u> </u>
17.08g/1000ml pure water
Peptone 5.0g
Sodium chloride 5.0g
Monobasic potassium phosphate 2.0g
Potassium phosphate 27g
Sodium dodecyl sulfate 0.1g
Tryptophan 1.0g
Sorbitol 1.0g
Enzyme substrates X-GAL & MUG 0.28g
pH6.8±0.2

β -Glucuronidase test

Raw animal meat and fresh seafood contains β -Glucuronidase. A coliform group test based on a light-emitting enzyme substrate (MUG) may produce fluorescence thus showing a false-positive reaction, even if E.coli is not present. The β -Glucuronidase test is an auxiliary test for checking this false indication of positive reaction.

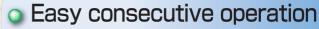
Specifications are subject to be changed for enhancement, with out notice.



Bacteria test for environmental

StampAgar

Totally new ideal design for operation



with fitting your fingers on the curve, designed on the side of the plate, even if piled two or three plates.

Individual molded container

prevents your fingers from burr, such as a serial plate separation makes it.

Color identification

marked on the brim of plate prevents an agar choice error.

Write on a sample ID

Available by a felt-tip pen on its brim of the plate.

Room temperature storable

saves your refrigerator space.

Product line



Code No. SAAC-60

StampAgar AC

Total Bacteria Count Agar

(Plate Count Agar)

Incubation: 36℃, 1~2days
Result: Count all colonies appeared.



Code No. SASA-60

StampAgar S



Staphylococcus Aureus Count Agar

(Egg yolk tellurite glycine mannitol agar)

Incubation: 36°C, 1~2days

Result: Count the black colonies which has a

translucent aureole (halo).



Code No. SAEC-60

StampAgar **EC**

AgarTricolor

(Magenta-GAL + X-GLUC agar)

E.coli and Coliform group simultaneous test

Incubation: 36℃, 1day

Result : Coliform G. positive : red \sim purplish-pink E.coli positive : blue \sim purplish blue



Code No. SAPD-60

StampAgar PD

Yeasts & Molds Count Agar

(Potato dextrose agar with chloramphenicol)

 $\begin{array}{l} \textbf{Incubation} : 20{\sim}25\%, 2{\sim}5 \\ \textbf{days} \\ \textbf{Result} : \textbf{Count all colonies appeared.} \end{array}$

Preservation	Shade, Room temperature (15~ 25°C)				
Shelf life	6 months from the manufactured day. It is to be unopened box.				
Media area	10 cm²				
Package specifications	60plate (10pcs / zip bag ×6)				
Materials	Plate: Plastic, Zip bag: Plastic, Package Box: Cardboard				

Specifications are subject to be changed for enhancement, with out notice.



Sterilized Diluents



Peptone types of MV-225



- Need no preparation
 - Pro·media Diluents are sterilized and disposable.
- Ready to use and Easy to use

Required volume is filled in a cup or container, just open to use.

Choose among eight types depending on purpose

Serial diluent, 90mL, 225mL, 1000mL, 5000mL of PBS, and 225mL of peptone types

- Storable at room temperature
- ◆Specifications are subject to be changed for enhancement, with out notice.

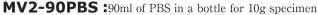


Operation

MT-11PBS:9ml of PBS in a cup for serial dilution.

- 1. Sterilize the aluminum lid with alcohol and a flame.
- Make two holes by an opener (Option. Code No.: OS-01)
 on the aluminum of each cups. Two holes are one for "sample inlet" and
 the other for "sample suction" to
 avoid contamination.

Point> The rest of cups which aluminum lid is unopened can be use next. **Note>** When you use it, please sterilize it with this way before.



- 1. Sterilize the aluminum lid with alcohol.
- 2. Open the aluminum lid and the entire PBS in a sterilized homogenize bag or lifter bag which has 10g specimen in it.
- 3. Use it as the 10 times of diluted sample, after homogenize by a homogenizer.

Useful example:> In case of liquid or powdery specimen

Open the aluminum lid after sterilize with alcohol, put the specimen into MV2-90PBS bottle directly, then shake it with keeping the aluminum lid by fingers. (Refer to the right photo)



MV-225AP: 225ml of Alkaline peptone in a bottle for 25g for Vibrio parahemolyticus test specimen. Operation for MV-225 and MV-225AP is as same as MV2-90PBS

MV2-1000PBS: 1,000ml of PBS in a bottle for Dilution system "DT cube". Sterilize the cap with alcohol before connect DT cube.



Separate-reconnect-able cup







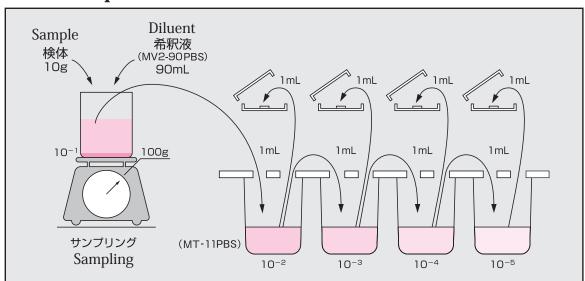
Useful example: put specimen into a bottle and shake.





MV2-1000PBS connecting image

Preparation and Serial dilution with MT-11PBS



Code No.	Specifications	Specimen	Qtty/box	Package materials	
MT-11PBS	PBS-0.9% NaCl (Phosphate Buffered Saline)	9mL for serial dilution	1mL	128 cup	Cup:PP, Lid:Aluminum
MV2-90PBS	Formula (g/1000ml pure water)	90mL for 10 times dilution	10g	40 pc	Bottle:PE, Lid:Aluminum
MV-225PBS	Sodium chloride (NaCl)	225mL for 10 times dilution	225g	40 pc	Bottle:PE, Lid:Aluminum
MV2-1000PBS	Disodium hydrogenphosphate 12-water (Na ₂ HPO ₄ •12H ₂ O)··· 0.0785g	1,000mL for dilution system		10 pc	Bottle:PE, Cap:PP
MV-5000PBS	Potassium dihydrogenphosphate (KH ₂ PO ₄) ······ 0.0127g	5,000mL for dilution system		2 pc	Bottle:PE, Cap:PP
MV-225BPW	Buffered peptone water-1.0% peptone	225mL for 10 times dilution of Salmonella, Staphylococcus aureus	225g	40 pc	Bottle:PE, Lid:Aluminum
MV-225MRD	Muximum recovery diluent-0.1% peptone	225mL for 10 times dilution	225g	40 pc	Bottle:PE, Lid:Aluminum
MV-225AP	Alkaline peptone-2.0% NaCl	225ml for 10 times dilution of Vibrio parahemolyticus	225g	40 pc	Bottle:PE, Lid:Aluminum

Specifications are subject to be changed for enhancement, with out notice.



Automatic weighing and dispensing device Pro-media DT cube





The product is shaped like a super-small cube and very lightweight. It is easy to move when cleaning or changing the layout of the inspection room, and performing other operations.

The dispensing nozzle can be installed on either the right or left side according to the inspection room layout. (The above photos show two examples.)

It can be combined with a foot switch (optional) and used on a clean bench.

Use of air compression

The product achieves a dispensing speed that is 20% higher than conventional models manufactured by Elmex. The product produces smooth and quiet sounds in dispensing. After dispensing, the product stands still and does not drip afterwards.

Compatible with both disposable or homemade diluents

Disposable diluent: The sterilized diluent MV2-1000PBS, MV-5000PBS exhibits its performance in terms of saving laboratory labor and examining samples submitted on short notice. Homemade diluent: The product can be connected to a sterilizable bottle (SB4000C) for using homemade diluent.

Two dispending modes

Automatic dilution : A ten-time diluent is automatically dispensed to the sample. The sample can therefore be weighed and dispensed without considering its weight.

Quantified dispensing : The desired amount of diluent can be dispensed regardless of the sample's weight.

Data output capability (optional)

A special-purpose printer can be used for printout whenever necessary.

Enhanced user-friendliness with a foot switch (optional)



An example with nozzle installed on the right

Product name	Automatic dispensing device Pro·media DTcube		
Product code	DT-3		
Specimen weight	0.5 to 1,000g/dilution factor		
Dispensing amount	5 ~ 1,000mL		
Injection precision	±0.8g		
Injection speed	7sec (when injecting 90mL)		
Dilution factor	2 to 999 times		
Scale weighing	0.1 ~ 1,500g		
Specific gravity setting	0.7 ~ 1.4		
Power supply	AC100V 50/60Hz 30W		
Weight	7.5kg		
Dimensions	W320×D280×H270mm (only the device proper)		
	Dispensing nozzle x 1pc.		
	Silicon tube x 2 pcs.		
Accessories	Electronic scale x 1unit		
	DT cube stand (SUS) x 1unit		
	MV2-1000PBS liquid feeder x 1set		







MV2-1000PBS

MV-5000PBS

SB4000C

< Options >

Product name	Code #	Specifications	Capacity
Data output printer	PA030	Thermal printer, Centronics cable, AC adaptor, thermosensitive paper 80 W x 15 m/roll	
Foot switch	PA037		1case
Bottle for Sterilize	SB4000C	Bottle capacity, 4 liters; injection/extraction cap, disc filter, silicon tube (The bottle can be completely sterilized by connecting the nozzles and liquid feed tube.)	1case
Otavilizad dilution water	MV2-1000PBS	Phosphate-buffered saline, 1 liter x 10 pcs.	1case
Sterilized dilution water	MV-5000PBS	Phosphate-buffered saline, 5 liter x 2 pcs.	1case

Specifications are subject to change without notice for enhancement.

For a homogenizer, we recommend that you order Elmex's Pro-media SH-II M. For homogenized bags and filter bags, we recommend that you order PYXON. These bags are divided into small lots and zippered, thus are very handy.



Sterilized filter bag for Homogenize



sereise

(PATENTED)

Adoption of high density filter

By using a fine filter, we can remove sample's residue very well. It is ideal for samples that tend to remain residue such as boiled egg or tofu. The area of the filter is wide, and sampling can be quickly taken after homogenization. More accurate colony counting is possible.

Wide aperture

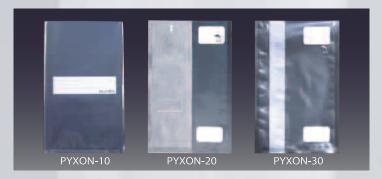
Easier to open with a wide filter opening. Sample inlet is also wide.

Write-on

It's easy to write data on the white print with an ordinary ballpoint pen, pencil, or felt-tip marker.

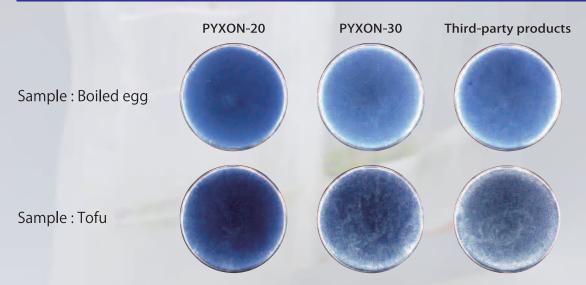
Sanitary portion pack

All items are packed by zip bag.





Comparison of filter filtration degree (30 seconds homogenized)



The cloudy white is the residue. Picture taken in the dark field lighting.



How to use of PYXON-20

MAKE A SLIT FOR MICRO PIPETTE

For dispenser (micro pipette) use, slit the bag with picking Pull-Tab and down until guide line.

Pull-down-guide-lines

The upper line is for 250mL / The lower line is for 100mL

In case of 10g specimen and 10 times sterilized water added, the water level will be about 4cm under the lower line.

Be careful

Do not slit down under the guide line. Slit straight when you slit pull-tab down.

DISPENSER (MICRO PIPETTE) OPERATION

Insert your Dispenser from the Slit made as the above way, and suck specimen up. It does not contaminate the body of the micro pipette.

Magic cut seriese

YOU CAN CUT BY HANDS

There is a magic cut processing on one side of the bag, you can cut by hand from anywhere. Insert the micropipette from the cut slit, and suck specimen up. It does not contaminate the body of the micro pipette.

■ Magic cut is a Registered trademark of Asahi Kasei Pax Corp.







Sterilized homogenize bag

PYXON-10

Qtty/Box: 1,000pcs SIZE: 180×300mm Capacity: 400mL Code No: PX0010

Plain homogenize bag Without filter

Sterilized Filter bag with fine filter

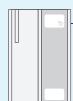
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PYXON-20

Qtty/Box: 500pcs SIZE: 190×300mm Capacity: 400mL Code No: PX0020

Pull-down type For a micro-pipette use

Open a slit in a part of the bag with picking pull-tab, insert the micropipette, and sucking the specimen up.



PYXON-20P

Qtty/Box: 500pcs SIZE: 190×300mm Capacity: 400mL Code No: PX0020P

Plain type For measuring pipette use

Simple filter bag

Sterilized Filter bag with normal filter

PYXON-30

Qtty/Box: 500pcs SIZE: 190×300mm Capacity: 400mL Code No: PX0030

Plain and economical type For measuring pipette use

Due to the filter is inside the bag, it is easy to visually check the suction state at the pipette operation.

PYXON-10C

Qtty/Box: 1,000pcs SIZE: 190×298mm Capacity: 400mL Code No: PX0030

Plain homogenize bag With Magic Cut, Without filter

Magic cut processing is given and it can be cut with hands. You can insert the pipette from where it was cut, and suck the specimen up.

Sterilization : Gamma irradiation

PYXON-20S

Qtty/Box: 500pcs SIZE: 190×300mm Capacity: 400mL Code No: PX0020S

For Spiral plating method use

Use for transferring specimen to anather sterilized container. With sealing for stopping the residue of specimen.

PYXON-20M

Qtty/Box: 1,000pcs SIZE: 190×300mm Capacity: 400mL Code No: PX0020M

Small size filter bag

Use for small amount (5g etc.)

PYXON-30C

Qtty/Box: 500pcs SIZE: 190×298mm Capacity: 400mL Code No: PX0030C

Plain and economical type With Magic Cut

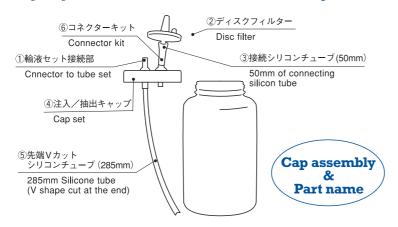
Magic cut processing is given and it can be cut with hands. You can insert the pipette from where it was cut, and suck the specimen up.

Specifications are subject tobe changed for enhancement, without notice.



Container for Autoclave ${ m SB4000C}$

- Ready to use by assembling with required parts completely.
- For making dilution water or broth.
- Useful for "DT cube" or "AP-0104" operation.





Bottle Entire view and aluminium wrap area

Component & specifications		Cap assembly	Cap assembly Connecter kit 6 Cap \$\phi\$ 100mm \$\pm\$				
Code No. SB4000C		composition	Disc filter & connection silicon tube $②+③$ 1 pair Silicon tube (ϕ 4.8, t1.6mm , 285mm) \bigcirc 1 pc				
Matarial	Bottle	Polypropylene		Part name	Above drawing No.	Code No.	Descriptions
Material Cap	Polypropylene		Connecter kit	6	SB0010	2 pcs	
Dimension	Diameter	<i>ϕ</i> 150mm	0-4:	Silicon tube	(5)	PA024	d φ 4.8 D φ 8.0×10m
Total height		400mm	Option	Connection silicon tube	3	PA027	d ø 5.0 D ø 9.0×1m
Capacity 4 litter		4 littor		Disc filter	2	SB0001	1 pc
		4 litter		Specifications: * Autoclavable * 0.22 μ m of pore size * 19.6 cm2 (ϕ 5cm) of effective area.			

Specifications are subject to change without notice for remodeling or quality enhancement.

Instructions

- **1** Fill pure water.
- 2 Add reagents required
- **3** Wrap two areas, which are a red circle (or the end of Nozzle after connecting "Nozzle & tube set" of DT cube or AP-001) and a pink circle of above picture, by aluminium foil.
- 4 Loosen a cap and wrap around the area of blue circle of above picture, by aluminium foil.
- **5** Put the entire bottle in an autoclave and sterilize.

Cautions

- ▲ Hold firmly the area 4 by both hands while screwing or loosing the cap.
 - ▶ Handling at the area ①, ②, ③ and ⑥ may be made destruction or damage.
- △ "Delay time*" by autoclave sterilization occurs with the specification of equipment and fluid volume. Be sure to confirm with the instructions manual of your autoclave before use.
 - ▶ "Delay time*" means "the reaching time of temperature" from "an autoclave sensor at 121°C" until "the center of a sterilization-container at 121°C".
 - <Example> In case of the autoclave model SV-2402 which inside capacity is 23 liter, the delay time is about 1 hour. So setting time for sterilization will be 1 hour and 20 minutes.
- △ Do not sterilize with the cap of container closed, or liquid may spout or a container may transform.
 △ Do not put two SB400C bottles into an autoclave vertically or by force.
 - or the mouth of bottle may transform and not connect with the tube set of DT cube correctly. I will be a cause of bad performance.
- △ Be careful for scald when you pick the bottle up from an autoclave. Do not take the bottle from an autoclave at high temperature.
 - ▶ Even if the inside temperature of autoclave is at 80°C, the inside temperature of bottle would be at 99°C, and it may occur dangerous bumping. To use a magnetic stirrer would be better to avoid this bumping.
- **△** Do not use the cracked bottle.
- ⚠ When you throw the used bottle and parts away, please ask the regulations of your area or country.



Homogenizer Pro-media SH-IIV

The body is made of sturdy stainless steel!



Impressive homogenize power!

The product comes with an original homogenize paddle. It incorporates blades made of rigid rubber. The SH-IIM effectively breaks sliced ham, fish paste, and lettuce, which are difficult to homogenize with flat paddles.

Homogenization twice as quick!

The product performs powerful homogenize, so that homogenization occurs twice as fast compared with conventional models. This helps accelerate routine work.

Its detachable door comes with a window.

The stainless steel door can be washed with water, and thus offers a sanitary design. The see-through window installed in the door lets you observe the "digestion" status of samples without opening the door.

Reliable Japanese-made product!

This SH-IIM takes full advantage of the essence of Elmex's expertise. It meets your needs for speedy maintenance.



Look at the right photo to observe the difference in breaking force.

Samples that are difficult to homogenize with conventional flat panel paddles can now be quickly broken into pieces by using the homogenize paddle as you see here. (Comparison is made with a conventional model manufactured by Elmex.)

Machine specifications							
Product name: Homogenizer Power supply: AC100V 50/60Hz Weight: 17.0kg							
	Pro·media SH-IIM	Power consumption : 100W	Dimensions: W255×D345×H345mm				
Model	: SH-IIM (SH-2M)	Timer: 15, 30, 60sec, manu (10 consecutive minutes)					

^{*}Specifications are subject to change without notice, for remodeing or quality enhancement.

For homogenization bags, we recommend that you specify Elmex's PYXON. All bags are divided into small lots and zippered.

				_		
Product name	Code #	Filter	Specifications	Capacity	Quantity	Dimensions
Sterilized homogenization bags	PX0010	No		400ml	1,000pcs. (20pcs.×50)	180×300mm
Sterilized filter bag PYXON-20	PX0020	Yes	Pull-down type for micro pipette	400ml	500pcs. (25pcs.×20)	190×300mm
Sterilized filter bag PYXON-20S	PX0020S	Yes	Type designed for spiral plating	400ml	500pcs. (20pcs.×25)	190×300mm
Sterilized filter bag PYXON-20P	PX0020P	Yes	Plain type for measuring pipette	400ml	500pcs. (20pcs.×25)	190×300mm
Sterilized filter bag, mini PYXON-20 m	ni PX0020M	Yes	Plain type for small-quantity samples	80ml	1,000pcs. (20pcs.×50)	114×190mm



Medium with an enzyme substrate for simultaneous inspection of coliform group and E. coli (designed enseities) for SWAR TEST) Pro-media ST-SSP (designed specifically for SWAB TEST)

- ST-SSP is an X-GAL MUG medium designed specifically for SWAB TEST Pro-media ST-25 and ST-26.
- Samples can be cultivated in a SWAB TEST container.
- Reduced cost and waste
 - Using this small (polyethylene) container that is 4.5cm high reduces waste.
 - Because this medium is sterilized, it requires no pre- or post-operations such as preparing a medium or test tube.
 - At E. coli inspection, be sure to use the BL-02 (an ultraviolet lamp with I 366nm).





Sterilized liquid medium Pro-media ST-SSP

SWAB TEST Pro·media ST-25



Black light BL-02



Product name	Code #	Specifications	Quantity
Sterilized liquid medium Pro-media ST-SSP	ST-SSP	Lauryl sulfate X-GAL MUG medium for 5-ml sample	300pcs. (10pcs./aluminum x 30)
SWAB TEST Pro-media ST-25	ST-25	Phosphate-buffered saline (10ml)	400pcs. ((10pcs./small case x 10)/shrink x 4)
SWAB TEST Pro-media ST-26	ST-26	Phosphate-buffered saline 10ml (extendible swab)	400pcs.((10pcs./small case x 10)/shrink x 4)
Black light	BL-02	For E. coli inspection, wavelength : λ 366nm	1pc

^{Specifications are subject to change without notice, for remodeing or quality enhancement.}

How to use this product

Wipe the sample off with SWAB TEST Pro-media ST-25 or ST-26.

- 1) Write the ID information (such as the inspection site and date) on the container label.
- 2) Open the cap of the SWAB TEST and squeeze the swab from outside the container.
- 3) Wipe the location to be inspected.
- 4) Close the container with the cap that comes with the swab used for wiping, then agitate and dilute the sample.
- 5) Use the mixture as a specimen for inspection.

Inspect for coliform group and $\it E.~coli.$

- 1) Take the specimen prepared as described above and use it in general live bacteria or for similar purposes. Then retain 5ml in the ST container and dispose of all the rest.
- 2) Open the top lid from the cap of the SWAB TEST, then inject it with ST-SSP.
- 3) Cultivate all of the SWAB TEST housed in the container. Cultivation time: 24hours Cultivation temperature
- 4) Judgment Coliform group-positive: The liquid inside turns blue. E. coli-positive: When irradiated with a black light BL-02 (366nm), the liquid inside turns fluorescent.
- * E. coli can be observed under indoor light.





Squeeze the cotton.



Wipe the location.



Agitate and dilute the liquid (thus completing the specimen).



Open the top lid and inject ST-SSP.





Coliform bacilli-positive (after cultivation at 36°C±1°C for 24 hours)



E. coli-positive





Hygiene & Environmental testing

Swab kit





Accessory: Extension tool

Specifications

Code No.	Liquid	Liquid Pc/box		irradiation	Material				storago
Code No.	Liquid	Liquid	iid FC/DOX	irradiation	Swab head	stick	Сар	Bottle	storage
SS-01-400	Phosphate Buffered Saline (PBS)	10mL	400	Gamma ray	Polyester	Polypropylene	Polypropylene	Polyethylene	2~25℃

[•] Specifications are subject to be changed for enhancement, without notice. • This product is for environmental inspection (Swab). Please do not use in any applications. · When using culture medium put in a Swab-Star container, please sterilize it before discard. · When discard, please follow your municipality's instructions

 Accessory						
Code No.	Product name	Pc/pack Length(mm)		Material		
SE-4	Extension tool	4 pair (Capper x 4pcs, Stick x 4pcs)	Capper + Stick x 1pcs = 155 Capper + Stick x 2pcs = 280 Capper + Stick x 3pcs = 405	ABS		

[•] Specifications are subject to be changed for enhancement, without notice.

ELMEX Ltd. 2-2, Ichigayasadohara-cho, Shinjuku-ku, Tokyo 164-0842 Tel:+81-(0)3-5229-7911 www.elmex.co.jp



Hygiene & Environmental Testing Swab kit





Ready to use self contained swab and diluent system

Swab kit tool "Swabstar" will contribute to the confirmation to effect of the chapter 11, "Cleaning and sanitizing" in FSSC22000, combined "ISO/TS22002-1:2009" and PAS223.





Ready to use.

Start anytime

Unique Swab Head

Polyester

Collection efficiency of bacteria compared to the rayon will be up by about 1.5 times. (ELMEX ratio)

Thin flat design

is effective to sampling for narrow gap places as well as a flat surface area.

With connecting an optional

Extention tool (patent pend)

Stick is able to concatenate 1, 2 or 3 pieces.



Hand and fingers



Knives



Effective to sampling for hard-to-reach places, such as deep of machinery or high place.

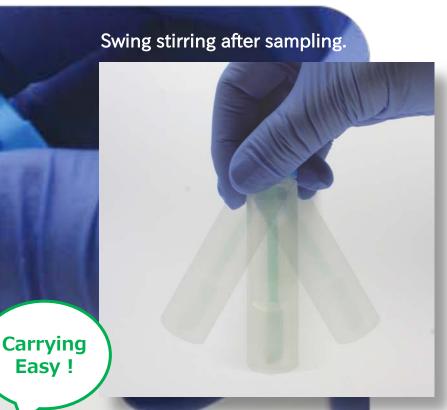






All In One

Ready to use self contained swab and diluent system



No pipetting require.

Flip open the lid then invert and inoculate to media using the measuring gauge on the side by squeezing.





Hygiene & Environmental Testing Pro-media SWAB TEST

Patente

Diluent

PBS

Phosphate Buffered Saline

BPW

Buffered Peptone Water

MRD

Maximum Recovery Diluent



Above medium is 3M Petrifilm

All in One

Ready to use self contained swab and diluent system.

No pipetting require

Flip the lid and inoculate media using the measuring gauge on the side.

Extendable Swab

ST-26PBS ST-26BPW For hard to reach places.

No test tube require

Incubate the entire container after added a media ST-SSP for coliform group test.

Compact incubator allows swabs to be readily processed on-site.

Manufacturer **ELMEX** Limited



Basic Operation









Squeeze swab bud to remove excess diluent.

Mix to suspend.

Squeeze to dispense.

Suggested Use

<Ex.1> Quantitative test

Flip open the lid, invert and inoculate by squeezing onto your media.

Each Swab test contains 10mL of diluent and the dispensed volume can be measured using the gauge on the side of the bottle.

Alternatively, one drop is $50\mu L$ or 20 drops per mL. The screw cap can be removed to allow the pipetting directly from the tube.



<Ex.2> Qualitative test (Presence or Absence)

For Coliform group test, simply add the ST-SSP reagent directly into Swab Test tube via the dispensing nozzle. Incubate for 24 hours at 36° C.



Code	ST-25PBS	ST-26PBS	ST-25BPW	ST-26BPW	ST-25MRD	
Swab Shaft	Standard	Extendable	Standard	Extendable	Standard	
Diluent	Phosphate Buffered Saline (0.85% NaCl)		Buffered Peptone Water (1.0% Peptone)		Maximum Recovery Diluent (0.1% Peptone)	
Quantity/box	400pcs (10pcs×40)					
Storage	Room temperature(2∼25°C), protected from direct light					
Shelf life(Unpacked state)	Two (2) years from production date.					
Sterilization	Gamma irradiation					

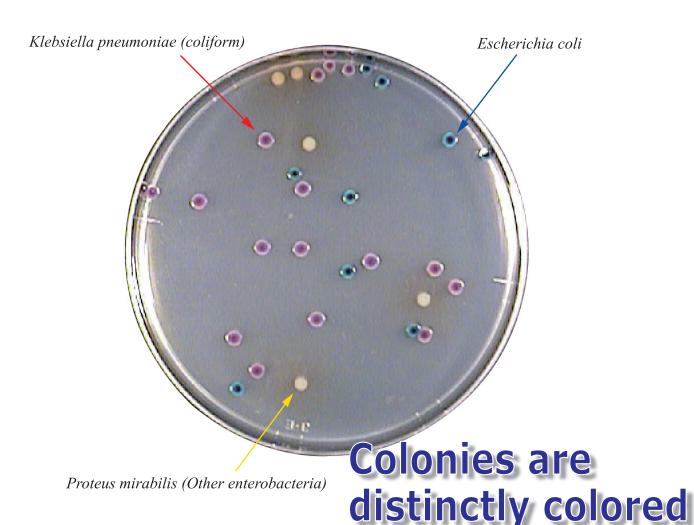
[◆] Specifications are subject to be changed for enhancement, with out notice.



Medium with an oxygen substrate for simultaneous inspection of coliform bacilli and E.coli

Sodium Lauryl Sulfate Magenta-GAL·X-GLUC Agar

Listed In Japanese Food Hygiene Inspection Guidelines (2004)



E.coli positive

 β -glucuronidase is a specific enzyme found only in *E.coli* among enterobacteria, except for *Salmonella* and *Shigella*. It is present in 95% of all *E.coli*. β -glucuronidase hydrolyzes the coloring enzyme-substrate complex X-GLUC, creates blue ~ purplish-blue.

Coliform positive

 β -galactosidase produced by coliform hydrolyzes the coloring enzyme-substrate complex MAGENTA-GAL, creates red \sim purplish.

Precaution

All gram-negative enterobacteria, except for coliform, form white colonies. This agar uses sodium lauryl sulfate as a gram-positive bacterial inhibitor. Not all of the enterobacteria are fostered.

- ★ After Use, sterilize the agar before disposal.
- ★ Specifications are subject to be change without notice, for remodeling or quality enhancement.

Coliform and *E.coli* are colored on a red and blue transparent agar, respectively, thus allowing for easy identification.

Product Name		Pro·media AGAR TRICOLOR		
Code No.	XMA-01N		XMA-400	
Volume	7.85g / pouch × 40		400g / bottle	
Recipe	Sodium Lauryl Sulfate Magenta-GAL, X-GLUC, Others			
		heat or perform autoclave	edium in a Petri dish filled with a	
Smear culture:		Drop a specimen on the surface of a medium dispensed and gelled to leave a unform coat of smears.		

C u I t i v a t e: Carry out for 18 to 24 hours at 35-37°C.



Sterilized filter bag for Homogenize PYXON-20 sereise

(Worldwide PATENT Pending)

<MORE THAN LESS LEES> <EASY TO USE PIPET> <DISPENSER PIPETTE USABLE> <INEXPENSIVE>

WIDE MOUTH

Easier to open with a wide filter opening! Sample inlet is also wide.

DISPENSER (Micro pipette) CAN BE USED

MAKE A SLIT

For dispenser (Micro pipette) use, slit the bag with picking Pull-Tab and down until Pull down guide line where is printed at the left bottom for pull down aim.

Pull down guide lines

The upper line is for 250ml

The lower line is for 100ml

In case of 10g specimen and 10 times sterilized water added, the water level will be about 4cm under the lower line.

Be careful

Do not slit down under the line. Slit straight when you slit pull-tab down.

DISPENSER OPERATION

Insert your Dispenser from the Slit made as the above way, then, suck specimen up.

WRITE- ON

It's easy to write data on the white print with an ordinary ballpoint pen, pencil, or felt-tip marker.

SANITARY PORTION PACK

All items are packed by zip bag.







SPECIFICAATIONS					
Product name	Code No.	Specifications	Qtty/box	Bag size	Capacity
Sterilized homogenize bag	PX0010	Plain homogenize bag without Filter.	1,000pcs	180×300mm	400ml
Sterilized filter bag	PX0020	Pull- down type for a micro- pipette use	500pcs	190×300mm	400ml
	PX0020P	Plain type for a measuring pipette use	500pcs	190×300mm	400ml
	PX0020S	For Spiral plating method use	500pcs	190×300mm	400ml
	PX0020M	Small size filter bag with pull- down tab	1,000pcs	114×190mm	80ml

Specifications are subject to change without notice for remodeling or quality enhancement.

URL://www.elmex.co.jp



Enzyme substrates broth for coliform group and *E.coli* test simultaneously

Sodium Dodecyl sulfate X-GAL+MUG Broth

Listed in "Standard Methods of Analysis in Food Safety Regulation 2004"



- Need no preparation
 - No Durham tubes nor water thermostat are required. Ready made sterilized kit saves your preparation time, such as autoclaving nor filling.
- Room temperature storable

saves your refrigerator space.

- Osimultaneous test available
 Coliform group turns to blue by X-GAL and E.coli fluorescence by MUG at 24 hours. No need EMB test.
- Specifications are subject to be changed for enhancement, with out notice.





BL-02

Paper disc

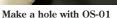
Code No.	Specifications	Qtty/box	
XM-30	10ml for 1ml sample	128cup	
XM-31	Double density 10ml for 10ml sample	128cup	
XM-32	Double density 5ml for 5ml sample	128cup	
XM0001	8.5g/AL bag (preparation use)	20bag	
BL-02	Black light 366nm for E.coli test	1pc	
OS-01	Opener for XM-30, XM-31, XM-32	1pc	
IND0101	Paper disc for Indole test	100pc	
GLU0101	Paper disc for β -glucuronidase test	100pc	



How to use

- Flame the surface of the aluminum sheet. It is not needed just after open the shrink-pack.
- Make a hole on the surface of the aluminum sheet with an opener (OS-01) or a pipette.
- 3) Put sample into a cup through this hole.
 <Sample volume> XM-30: 1ml, XM-31: 10ml, MX-32: 5ml
 4) Incubate it at 36°C ± 1°C for 24 hours.
- 4-cup-train of XM-30, XM-31, MX-32 are able to separate and reconnect, the unopened cups can be used next time.
- After use, sterilize before scrap.
- Use XM0001 after preparation. Put broth into test tube and sterilize.







Put sample in

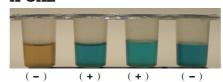
Technical information

Coliform group positive

 β -Galactosidase, an indicator of coliform group, is lactose fermentation enzyme which exists in coliform group that lactose is fermented. The enzyme substrate X-GAL is hydrolyzed by this lactose fermentation enzyme, and forms 5,5-Dibromo-4,4-dichloro indigo, thus turning blue~blue-violet.

<Note> Sample which has a large quantity of lactic acid bacteria will be a case to show a false-positive.

X-GAL

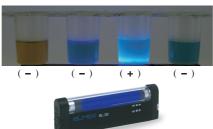


Result

E.coli positive

 β -Glucuronidase, an indicator of *E.coli*, is a peculiar enzyme present only in intestinal bacteria except Salmonella and Shigella, and 95% of *E.coli* has this enzyme. When this β -glucuronidase is hydrolyzed by the enzyme substrate MUG, 4-Methylumbeliferon disengages and decomposes, then shows fluorescence with irradiating by UV light (wevlength: 366nm). This fluorescence can be observed under indoor light.

MUG



Coliform group reaction 5-Bromo-4-chloro-3-indoline Oxidation reaction 5,5-Dibromo-4,4-dichloro indigo

Reaction

Indole test

Tryptophanase activity or the ability to form indole from tryptophan is present in 95% E.coli strain. The indole test is an auxiliary test for detecting about 5% β -Glucuronidase-negative E.coli rarely present.

<Note> It shows positive in case that the other indole production bacteria exist or coexist with E.coli.

Indole



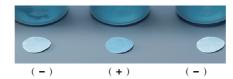
Indole vaporized reacts to the paper disc which impregnated p-Dimethylamino benzoic aldehyde and changes color into light-violet.

Raw animal meat and fresh seafood contains

β -Glucuronidase test

 β -Glucuronidase. A coliform group test based on a light-emitting enzyme substrate (MUG) may produce fluorescence thus showing a false-positive reaction, even if E.coli is not present. The β -Glucuronidase test is an auxiliary test for checking this false indication of positive reaction.

β -Glucuronidase



B-Glucuronidase reacts to the paper disc which impregnated X-GLUC and turns into blue.

E.coli reaction MUG (Colorless) β-Glucuronidase Glucuronic acid 4-Methylumbelliferon WWW UV irradiation Wavelength: 366nm Wavelength: 460nm

Ingredient	
Peptone Sodium chloride Monobasic potassium phosphate Potassium phosphate Sodium dodecyl sulfate Tryptophan Sorbitol Enzyme substrates X-GAL & ML	5.0g 2.0g 2.7g 0.1g 1.0g

Specifications are subject to be changed for enhancement, with out notice.