Product Catalogue
For
Food Hygiene and
Environmental Testing

HyServe GmbH & Co. KG

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Food Stamp
Standard Method Agar (SMA)

Simple and Easy Stamp Medium for Food Hygiene test: Total Viable Bacterial Count

Code 1000029 – 100 plates
1000030 – 30 plates

Formula (in 1 liter)

Peptone	5.0g	Yeast Extract	2.5g
Dextrose	1.0g	Agar	15.0g

Directions

Food Stamp is a prepared agar medium for Stamp method, on which agar stands up slightly above the rim of special Petri dish of 10 cm^2. Take off the cap of Food Stamp and gently press the medium against the surface of specimen. The surface of agar is elastic enough to be pressed firmly against the specimen. Press against the different parts of the specimen when several kinds of Food Stamps are tested simultaneously. Put the cap again immediately after pressing.

This Food Stamp is designed to measure and detect the degree of contamination of the specimen.

Incubate at 37℃ for 24 - 48 hours or at Room Temperature for 48 – 96 hours.

Interpretations

Count all colonies grown on the surface.

Storage

Keep at 4 – 10℃. Do not freeze.
Six (6) months after manufacturing.

Further Information

See Page 53

Food Stamp
X-GAL Agar

Simple and Easy Stamp Medium for Food Hygiene test: Coliforms

Code 1000041 – 100 plates
1000042 – 30 plates

Formula (in 1 liter)

Peptone	15.0g	Yeast Extract	5.0g
Sodium Pyruvate	1.0g	Sodium Chloride	15.0g
Disodium Phosphate	2.0g	Potassium Nitrate	1.0g
Sodium Lauryl Sulfate	0.15g	Agar	15.0g

5-bromo-4-chloro-3-indolyl- β -D-galactopyranoside (X-GAL)……0.15g

Directions

Food Stamp is a prepared agar medium for Stamp method, on which agar stands up slightly above the rim of special Petri dish of 10 cm^2. Take off the cap of Food Stamp and gently press the medium against the surface of specimen. The surface of agar is elastic enough to be pressed firmly against the specimen. Press against the different parts of the specimen when several kinds of Food Stamps are tested simultaneously. Put the cap again immediately after pressing.
Incubate at 37℃ for 24 - 48 hours.
Coliform group decompose X-GAL (colorimetric enzyme substrate) in the medium to bring out blue / blue-green color by β -galactosidase produced by Coliforms.
Growth of all other bacteria will be inhibited, and they develop only white colonies even are they grow.

Interpretations

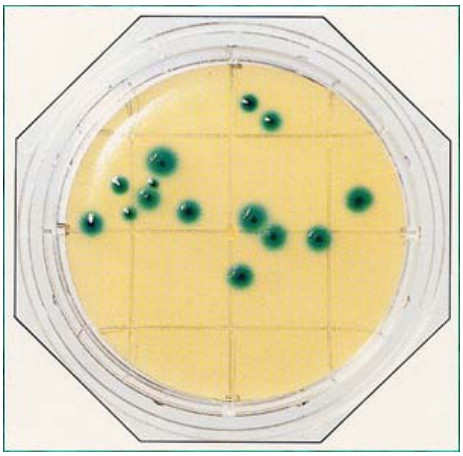
Count all blue / blue-green color colonies grown on the surface.

Storage

Keep at 4 – 10℃. Do not freeze.
Five (5) months after manufacturing.

Further Information

See Page 53



Food Stamp
XM-G Agar

Simple and Easy Stamp Medium for Food Hygiene test: *Escherichia coli* and Coliforms

Code 1000043 – 100 plates
1000044 – 30 plates

Formula (in 1 liter)

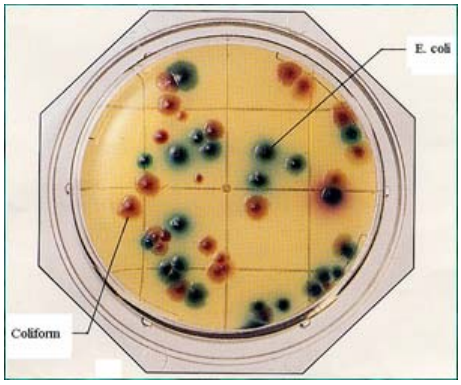
Peptone	15.0g	L-Tryptophan	1.0g
Sodium Pyruvate	1.0g	D-Sorbitol	1.0g
Sodium Chloride	5.0g	Monopotassium Phosphate	2.2g
Dipotassium Phosphate	2.7g	Potassium Nitrate	1.0g
Sodium Lauryl Sulfate	0.2g	Agar	15.0g
5-bromo-4-chloro-3-indolyl- β -D-glucuronide (X-GLUC)			0.1g
5-bromo-6-chloro-3-indolyl- β -D-galactopyranoside (MAGENTA-GAL)			0.1g

Directions
Food Stamp is a prepared agar medium for Stamp method, on which agar stands up slightly above the rim of special Petri dish of 10 cm^2. Take off the cap of Food Stamp and gently press the medium against the surface of specimen. The surface of agar is elastic enough to be pressed firmly against the specimen. Press against the different parts of the specimen when several kinds of Food Stamps are tested simultaneously. Put the cap again immediately after pressing.
Incubate at 37℃ for 24 - 48 hours. Coliform group decompose X-GAL (colorimetric enzyme substrate) in the medium to bring out blue / blue-green color by β -galactosidase produced by Coliforms. Growth of all other bacteria will be inhibited, and they develop only white colonies even are they grow.

Interpretations
Count all pink / red-purple color colonies grown on the surface as Coliforms.
Count all blue / blue-purple color colonies grown on the surface as *E. coli*.
E. coli O-157 does not have a β -glucuronidase, and then it will be identified as a Coliform.
Overtime incubation may foster growth of microorganisms other than *E. coli* and Coliforms.
Red color may be observed if the sample contains lactobacilli that has also a β -galactosidase.

Storage
Keep at 4 – 10℃. Do not freeze.
Five (5) months after manufacturing.

Further Information
See Page 53



Food Stamp
TCBS Agar

Simple and Easy Stamp Medium for Food Hygiene test: *Vibrio parahaemolyticus*

Code 1000031 – 100 plates
1000032 – 30 plates

Formula (in 1 liter)

Peptone	10.0g	Ferric Citrate	1.0g
Yeast Extract	1.0g	Saccharose	17.0g
Sodium Chloride	10.0g	Ox gall	5.0g
Sodium Thiosulfate	10.0g	Bromthymol Blue	0.04g
Sodium Citrate	10.0g	Thymol Blue	0.04g
Sodium Cholate	3.0g	Agar	15.0g

Directions

Food Stamp is a prepared agar medium for Stamp method, on which agar stands up slightly above the rim of special Petri dish of 10 cm^2. Take off the cap of Food Stamp and gently press the medium against the surface of specimen. The surface of agar is elastic enough to be pressed firmly against the specimen. Press against the different parts of the specimen when several kinds of Food Stamps are tested simultaneously. Put the cap again immediately after pressing.

Incubate at 37℃ for 24 - 48 hours.

Interpretations

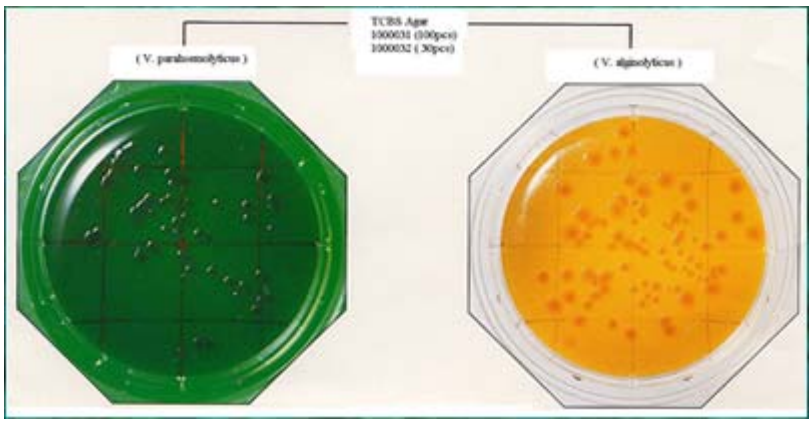
Green (*V. parahaemolyticus*) and Yellow (*V. alginolyticus*) colonies are observed on the surface. Possible contamination of *V. parahaemolyticus* is suspected when many yellow colonies (*V. alginolyticus*) are observed.

Storage

Keep at 4 – 10℃. Do not freeze.
Six (6) months after manufacturing.

Further Information

See Page 53



Food Stamp
TGSE Agar

Simple and Easy Stamp Medium for Food Hygiene test: *Staphylococcus aureus*

Code 1000033 – 100 plates
1000034 – 30 plates

Formula (in 1 liter)

Peptone……..…….15.0g	Soya Peptone……2.0g
Beef Extract..…..……..…..…... .3.0g	Calcium Chloride……..…….. .17.0g
Sodium Chloride....…….…….....65.0g	Mannitol…..…..…..…..…..…….5.0g
Lithium Chloride . . ..……..……..10.0g	Glycine……...0.04g
Potassium Tellurite……..…..…....10.0g	Egg yolk……..…….. ...5%
Agar……..……..……15.0g	

Directions

Food Stamp is a prepared agar medium for Stamp method, on which agar stands up slightly above the rim of special Petri dish of 10 cm^2 . Take off the cap of Food Stamp and gently press the medium against the surface of specimen. The surface of agar is elastic enough to be pressed firmly against the specimen. Press against the different parts of the specimen when several kinds of Food Stamps are tested simultaneously. Put the cap again immediately after pressing.

Incubate at 37℃ for 24 - 48 hours or at Room Temperature for 72 – 96 hours.

Interpretations

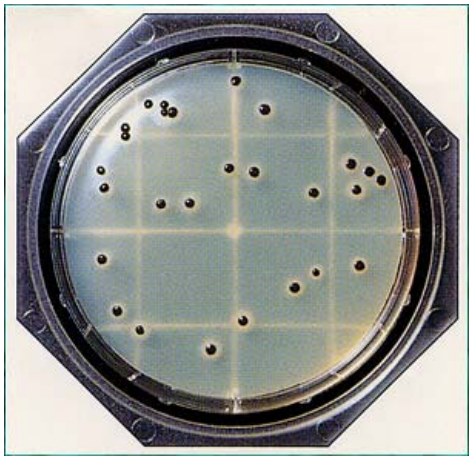
Staphylococcus aureus forms black colonies with milky surroundings around the colonies.
S. aureus shows a positive egg yolk reaction. Black colony with negative egg yolk reaction is not interpreted as *S. aureus*.

Storage

Keep at 4 – 10℃. Do not freeze.
Six (6) months after manufacturing.

Further Information

See Page 53



Food Stamp
MLCB Agar

Simple and Easy Stamp Medium for Food Hygiene test: *Salmonella*

Code 1000039 – 100 plates
1000040 – 30 plates

Formula (in 1 liter)

Peptone……..…….10.0g	Sodium Thiosulfate…….4.0g
Yeast Extract..…..……..…..…....3.0g	Ferric Ammonium Citrate..…….. .. .1.0g
Heart Extract Powder. ……..…....2.0g	Brilliant Green..…..…..…..……..0.0125g
Sodium Chloride. . ..…….. .4.0g	Crystal Violet…….... .0.01g
Mannitol….. ……..…..... ... .3.0g	Agar……..…….. ... .15.0g
L-Lysine Hydrochloride.…….5.0g	

Directions

Food Stamp is a prepared agar medium for Stamp method, on which agar stands up slightly above the rim of special Petri dish of 10 cm^2 . Take off the cap of Food Stamp and gently press the medium against the surface of specimen. The surface of agar is elastic enough to be pressed firmly against the specimen. Press against the different parts of the specimen when several kinds of Food Stamps are tested simultaneously. Put the cap again immediately after pressing.

Incubate at 37℃ for 24 - 48 hours.

Interpretations

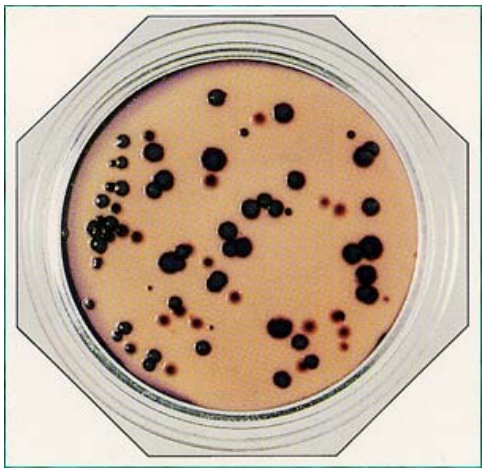
Salmonella produces hydrogen sulfide and forms black colonies or colonies with black center.
Citrobacter may develop black colonies just like Salmonella.
Purple colonies are not *Salmonella*.

Storage

Keep at 4 – 10℃. Do not freeze.
Four (4) months after manufacturing.

Further Information

See Page 53



Food Stamp
Cereus Agar

Simple and Easy Stamp Medium for Food Hygiene test: *Bacillus cereus*

Code 1000035 – 100 plates
1000036 – 30 plates

Formula (in 1 liter)

Proteose Peptone	10.0g	Glycine	10.0g
Peptone	10.0g	Phenol Red	0.05g
Heart Extract Powder.	5.0g	Polymyxin B	50,000unit
Sodium Chloride	5.0g	Egg Yolk Suspension	10%
Lactose	10.0g	Agar	25.0g

Directions

Food Stamp is a prepared agar medium for Stamp method, on which agar stands up slightly above the rim of special Petri dish of 10 cm^2. Take off the cap of Food Stamp and gently press the medium against the surface of specimen. The surface of agar is elastic enough to be pressed firmly against the specimen. Press against the different parts of the specimen when several kinds of Food Stamps are tested simultaneously. Put the cap again immediately after pressing.

Incubate at 37℃ for 24 - 48 hours.

Interpretations

Bacillus cereus forms white colonies with an irregular rim, which develop opaque zone (positive egg yolk reaction) around the colonies and change the color of medium to Red.
Small colonies with negative egg yolk reaction are not *B. cereus*.

Storage

Keep at 4 – 10℃. Do not freeze.
Six (6) months after manufacturing.

Further Information

See Page 53

Food Stamp
Sabouraud Agar

Simple and Easy Stamp Medium for Food Hygiene test: *Bacillus cereus*

Code 1000027 – 100 plates
1000028 – 30 plates

Formula (in 1 liter)

Peptone……..……..……..……....10.0g Dextrose…..…..…..….....40.0g
Agar……..……..... ..15.0g

Directions

Food Stamp is a prepared agar medium for Stamp method, on which agar stands up slightly above the rim of special Petri dish of 10 cm^2 . Take off the cap of Food Stamp and gently press the medium against the surface of specimen. The surface of agar is elastic enough to be pressed firmly against the specimen. Press against the different parts of the specimen when several kinds of Food Stamps are tested simultaneously. Put the cap again immediately after pressing.

Incubate at 30℃ for 48 - 72 hours.

Interpretations

Fungi develop characteristic fluffy colonies on the surface.
All characteristic colonies should be counted for evaluation.

Storage

Keep at 4 – 10℃. Do not freeze.
Six (6) months after manufacturing.

Further Information

See Page 53

Food Stamp

Potato Dextrose Agar with CP

Simple and Easy Stamp Medium for Food Hygiene test: Food poisoning Fungi

Code 1000037 – 100 plates
1000038 – 30 plates

Formula (in 1 liter)

Potato Extract	4.0g	Dextrose	20.0g
Chloramphenicol	100mg	Agar	15.0g

Directions

Food Stamp is a prepared agar medium for Stamp method, on which agar stands up slightly above the rim of special Petri dish of 10 cm^2 . Take off the cap of Food Stamp and gently press the medium against the surface of specimen. The surface of agar is elastic enough to be pressed firmly against the specimen. Press against the different parts of the specimen when several kinds of Food Stamps are tested simultaneously. Put the cap again immediately after pressing.

Incubate at 30℃ for 48 - 72 hours.

Interpretations

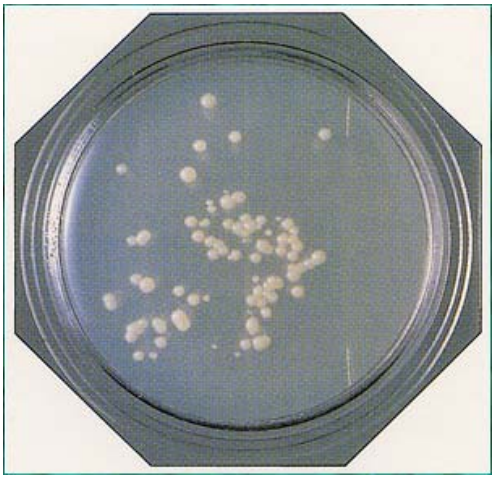
Since Chloramphenicol in the medium inhibits the growths of other bacteria, all colonies can be counted for Fungi.

Storage

Keep at 4 – 10℃. Do not freeze.
Five (5) months after manufacturing.

Further Information

See Page 53



Food Stamp
X-SA Agar

Simple and Easy Stamp Medium for Food Hygiene test: *Staphylococcus aureus*

Code 1000046 – 100 plates
1000047 – 30 plates

Formula (in 1 liter)

Peptone	13.0g	Beef Extract	3.0g
Lithium Chloride	5.0g	Mannitol	10.0g
Agar	14.0g	Chloramphenicol	100mg

5-bromo-4-chloro-3-indolyl-phosphate,disodium salt sesquihydrate (X-SA).....0.2g

Directions

Food Stamp is a prepared agar medium for Stamp method, on which agar stands up slightly above the rim of special Petri dish of 10 cm^2. Take off the cap of Food Stamp and gently press the medium against the surface of specimen. The surface of agar is elastic enough to be pressed firmly against the specimen. Press against the different parts of the specimen when several kinds of Food Stamps are tested simultaneously. Put the cap again immediately after pressing.

Incubate at 35 - 37℃ for 22 - 24 hours.

Interpretations

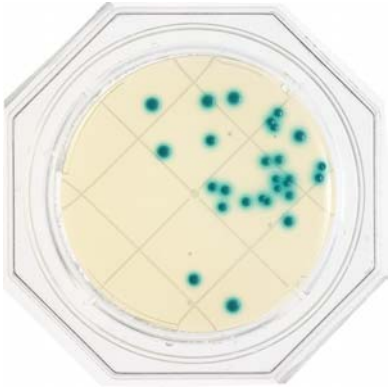
Staphylococcus aureus forms blue color smooth colonies with converging lens shape colonies.
*Coagulase-negative *Stapylococcus* form white or blue smallness colonies.
**Bacillus* sp. may form light blue and flat colonies without glaze on this plate.

Storage

Keep at 4 – 10℃. Do not freeze.
Four (4) months after manufacturing.

Further Information

See Page 53



Food Stamp
Standard Desoxycholat Agar (DESO)

Simple and Easy Stamp Medium for Food Hygiene test: Coliforme

Code 1000025 – 100 plates
1000026 – 30 plates

Formula (in 1 liter)

Sodium Desoxycholate	1.0g	Dipotassium Phosphate	2.0g
Sodium Chlorid	5.0g	Ferric Ammonium Citrate	2.0g
Peptone	10.0g	Lactose	10.0g
Neutral Red	0.033g	Agar	15.0g

Directions

Food Stamp is a prepared agar medium for Stamp method, on which agar stands up slightly above the rim of special Petri dish of 10 cm^2. Take off the cap of Food Stamp and gently press the medium against the surface of specimen. The surface of agar is elastic enough to be pressed firmly against the specimen. Press against the different parts of the specimen when several kinds of Food Stamps are tested simultaneously. Put the cap again immediately after pressing.

Incubate at 37℃ for 24 - 48 hours or room temperature for 48 hours

Interpretations

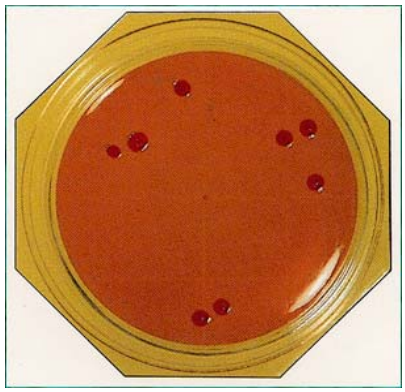
Count all colonies on the surface

Storage

Keep at 4 – 10℃. Do not freeze.
Four (4) months after manufacturing.

Further Information

See Page 53



Clean Stamp
MSO Agar (MSO)

Environmental Test for Medical Ambience: MRSA

Code 06780 – 100 plates
06781 – 30 plates

Formula (in 1 liter)

Beef Extract……1.0g	Colistin……10.0mg
Peptone……..……...10.0g	Amphotericin B……2.0mg
Sodium Chloride……..…..40.0g	Aztreonam……..……5.0mg
Mannitol……..……..…...10.0g	Phenol Red……..……..25.0mg
Sodium Pyruvate……..……2.0g	Egg Yolk……..30.0ml
Lithium Chloride…….5.0g	Agar……15.0g
Oxacillin……...…..6.0mg	
pH 7.4±0.1	

Directions
Clean Stamp is a prepared agar medium for Stamp method, on which agar stands up slightly above the rim of special Petri dish of 10 cm^2 . Take off the cap of Clean Stamp and gently press the medium against the surface of specimen. The surface of agar is elastic enough to be pressed firmly against the specimen. Press against the different parts of the specimen when several kinds of Clean Stamps are tested simultaneously. Put the cap again immediately after pressing.
Incubate at 35℃ for 24 - 48 hours.

Interpretations

MRSA: MRSA forms round yellow/cream color colonies with yellow surroundings around the colonies. Due to positive Egg Yolk reaction, white turbidity is developed inside the medium around the colonies while the surface has pearly luster.
In case of faint Egg Yolk reaction is observed, extend incubation to 48 hours, and read the reaction after colonies are removed.

Non-MRSA: Mannitol non-fermenting (no yellow color change) and negative Egg Yolk reaction bacteria are not MRSA.

Storage
Do keep at 4 – 10℃. Do not freeze.
Two (2) months after manufacturing.

Further Information
See Page 53

Clean Stamp
Mannitol Salt Agar with Egg Yolk (MSEY)
Microbiological Test for Medical Ambience: *Staphylococcus*

Code 1000179 – 100 plates
1000180 – 30 plates

Formula (in 1 liter)

Beef Extract……1.0g	Phenol Red……..25.0mg
Peptone……..……...10.0g	Egg Yolk……..……30.0ml
Sodium Chloride……..…..75.0g	Agar……15.0g
Mannitol……..……..…..10.0g	
pH 7.4±0.1	

Directions
Clean Stamp is a prepared agar medium for Stamp method, on which agar stands up slightly above the rim of special Petri dish of 10 cm^2 . Take off the cap of Clean Stamp and gently press the medium against the surface of specimen. The surface of agar is elastic enough to be pressed firmly against the specimen. Press against the different parts of the specimen when several kinds of Clean Stamps are tested simultaneously. Put the cap again immediately after pressing. Incubate at 35℃ for 24 - 48 hours.

Interpretations

Staphylococcus aureus: *Staphylococcus aureus* forms round yellow/cream color colonies with yellow surroundings around the colonies. Due to positive Egg Yolk reaction, white turbidity is developed inside the medium around the colonies while the surface has pearly luster.
In case of faint Egg Yolk reaction is observed, extend incubation to 48 hours, and read the reaction after colonies are removed.

Other *Staphylococcus*: Other *Staphylococcus* forms small round white colonies with no color changes or red surroundings around the colonies, and do not show any positive Egg Yolk reaction.

Storage
Keep at 4 – 10℃. Do not freeze.
Five (5) months after manufacturing.

Further Information
See Page 53

Clean Stamp

SCD Agar (SCD)

Microbiological Test for Environment: Viable Bacterial Count
Soybean Casein Digest Agar

Code 1000181 – 100 plates
1000182 – 30 plates

Formula (in 1 liter)

Peptone……...…….……15.0g	Sodium Chloride……..5.0g
Soya Peptone…..……..……..…....5.0g	Agar……..……15.0g
pH 7.2±0.1	

Directions

Clean Stamp is a prepared agar medium for Stamp method, on which agar stands up slightly above the rim of special Petri dish of 10 cm^2 . Take off the cap of Clean Stamp and gently press the medium against the surface of specimen. The surface of agar is elastic enough to be pressed firmly against the specimen. Press against the different parts of the specimen when several kinds of Clean Stamps are tested simultaneously. Put the cap again immediately after pressing. Incubate at 35℃ for 24 - 48 hours.

Interpretations

Count all colonies grown on the surface.

Storage

Keep at 4 – 10℃. Do not freeze.
Five (5) months after manufacturing.

Further Information

See Page 53

Clean Stamp
SCD Agar with Lecithin, Polysorbate 80 (SCDLP)

Microbiological Test for Environment: Viable Bacterial Count
Including inactivate agents

Code 1000183 – 100 plates
1000184 – 30 plates

Formula (in 1 liter)

Peptone……..……15.0g	Lecithin……..1.0g
Soya Peptone…..……..…..…..…....5.0g	Polysorbate 80…….……7.0g
Sodium Chloride……..5.0g	Agar……..……15.0g
pH 7.2±0.1	

Directions

Clean Stamp is a prepared agar medium for Stamp method, on which agar stands up slightly above the rim of special Petri dish of 10 cm^2 . Take off the cap of Clean Stamp and gently press the medium against the surface of specimen. The surface of agar is elastic enough to be pressed firmly against the specimen. Press against the different parts of the specimen when several kinds of Clean Stamps are tested simultaneously. Put the cap again immediately after pressing.

This Clean Stamp is designed to measure and detect the degree of pollution of the specimen which surface has been processed with chemicals or disinfectants. As lecithin and polysorbate 80 inactivate those chemicals and disinfectants absorbed into medium, more reliable results can be obtained.

Incubate at 35℃ for 24 - 48 hours.

Interpretations

Count all colonies grown on the surface.

Storage

Keep at 4 – 10℃. Do not freeze.
Five (5) months after manufacturing.

Further Information

See Page 53

Clean Stamp 25
SCD Agar (SCD)

Microbiological Test for Environment: Viable Bacterial Count
Soybean Casein Digest Agar

Code 1000196 – 150 plates
1000195 – 30 plates

Formula (in 1 liter)

Peptone……..…….……15.0g	Sodium Chloride……..5.0g
Soya Peptone…..……..……..…....5.0g	Agar……..……15.0g
pH 7.2±0.1	

Directions
Clean Stamp 25 is a prepared agar medium for Stamp method, on which agar stands up slightly above the rim of special Petri dish of 25 cm^2. Take off the cap of Clean Stamp 25 and gently press the medium against the surface of specimen. The surface of agar is elastic enough to be pressed firmly against the specimen. Press against the different parts of the specimen when several kinds of Clean Stamps are tested simultaneously. Put the cap again immediately after pressing.
Incubate at 30 - 35℃ for 2 – 5 days.

Interpretations
Count all colonies grown on the surface.

Remarks
Clean Stamp 25 SCD is made and prepared of Code 05516 Trypto-Soya Agar according to its directions, and aseptically distributed and solidified in the special Petri dishes having an inside diameter of 58mm, outside diameter of 73mm and height of 18mm. One clean film bag contains 3 Clean Stamp 25s connected in series.

Storage
Keep at 4 – 10℃. Do not freeze.
Five (5) months after manufacturing.

Further Information
See Page 53

Clean Stamp 25
SCDLP Agar (SCDLP)

Microbiological Test for Environment: Viable Bacterial Count
Including inactivate agents

Code 1000197 – 150 plates
1000198 – 30 plates

Formula (in 1 liter)

Peptone……..……15.0g	Lecithin……..1.0g
Soya Peptone…..……..…..…..…....5.0g	Polysorbate 80…….……7.0g
Sodium Chloride……..5.0g	Agar……..……15.0g
pH 7.2±0.1	

Directions

Clean Stamp 25 SCDLP is a prepared agar medium for Stamp method, on which agar stands up slightly above the rim of special Petri dish of 25 cm^2 . Take off the cap of Clean Stamp 25 SCDLP and gently press the medium against the surface of specimen. The surface of agar is elastic enough to be pressed firmly against the specimen. Press against the different parts of the specimen when several kinds of Clean Stamps are tested simultaneously. Put the cap again immediately after pressing.

This Clean Stamp 25 SCDLP is designed to measure and detect the degree of pollution of the specimen which surface has been processed with chemicals or disinfectants. As lecithin and polysorbate 80 inactivate those chemicals and disinfectants absorbed into medium, more reliable results can be obtained.
Incubate at 30 - 35℃ for 2 – 5 days.

Interpretations

Count all colonies grown on the surface.

Remarks

Clean Stamp 25 SCDLP is made and prepared of Code 05516 Trypto-Soya Agar Plus Lecithin and Polysorbate 80 according to its directions, and aseptically distributed and solidified in the special Petri dishes having an inside diameter of 58mm, outside diameter of 73mm and height of 18mm. One clean film bag contains 3 Clean Stamp 25s connected in series.

Storage

Keep at 4 – 10℃. Do not freeze.
Five (5) months after manufacturing.

Further Information

See Page 53

Clean Stamp 25
Sabouraud Agar with Chloramphenicol (CPSB)

Microbiological Test for Environment: Fungus

Code 1000199 – 150 plates
1000200 – 30 plates

Formula (in 1 liter)

Peptone	10.0g	Chloramphenicol	50mg
Dextrose	40.0g	Agar	15.0g

pH 5.9±0.2

Directions

Clean Stamp 25 CPSB is a prepared agar medium for Stamp method, on which agar stands up slightly above the rim of special Petri dish of 25 cm^2. Take off the cap of Clean Stamp 25 CPSB and gently press the medium against the surface of specimen. The surface of agar is elastic enough to be pressed firmly against the specimen. Press against the different parts of the specimen when several kinds of Clean Stamps are tested simultaneously. Put the cap again immediately after pressing.

Interpretations

Count all colonies grown on the surface.

Remarks

Clean Stamp 25 CPSB is made and prepared of Code 05701 Sabouraud Agar Plus Chloramphenicol according to its directions, and aseptically distributed and solidified in the special Petri dishes having an inside diameter of 58mm, outside diameter of 73mm and height of 18mm. One clean film bag contains 3 Clean Stamp 25s connected in series.

Storage

Keep at 4 – 10℃. Do not freeze.
Five (5) months after manufacturing.

Further Information

See Page 53

Food Allergen Screening Test Kit

FASTKIT Series

For raw materials like Egg, Milk, Wheat, Buckwheat (Soba) and Peanut

Code 08600 - FASTKIT ELISA Egg
08601 - FASTKIT ELISA Milk
08602 - FASTKIT ELISA Wheat
08603 - FASTKIT ELISA Buckwheat (Soba)
08604 - FASTKIT ELISA Peanut

Directions

The regulation related Food Sanitation Law in Japan was revised, and new regulation of Labeling of Allergenic Substance in Food was issued to make it compulsory to indicate on the label of the name of specific raw materials, its interfusion or carry-over. Specific raw materials stipulated are egg, milk, wheat, soba and peanut, all of which may be considered to be allergenic foods and may cause serious allergy.
FAST (Food Allergen Screening Test) KIT series are the test to detect the proteins included in the specific raw materials, and designed for all those five raw materials in both rude and processed materials specified by regulation.

Features and Benefit

1. **High sensitivity**: FASTKIT can detect and measure as low as 1 ～ 5 μ g/g (ppm) of specific raw material mixed in food.
   It is said that allergic reactions may be frequently caused in case of the foods contained more than several dozen μ g/g of antigenic proteins in them. FASTKIT can detect and measure a small amount of specific raw material mixed in food (1 ～ 5 μ g/g) depending on the foods.
2. **Polyclonal antibody that can detect several antigenic proteins in the food all together.**
   Unlike conventional methods that detect only singly antigenic protein, FASTKIT consists of specific antibody that detects several antigenic proteins in specific raw materials. For example, the test consisted of the antibody that reacts only with egg white (ex. OVA), cannot detect egg yolk in the food, and no indication is eventually made for the egg yolk, which violate the regulation of Food Sanitation Law. Instead FASTKIT detects both of them.
3. **Well suited even for processed foods**.
   FASTKIT consists of antibody that is immunized even with heat-denatured proteins, and FASTKIT can detect specific raw materials in not only rude but also foods processed through heat or pressure during manufacturing.

Measurement Principle

ELISA Method (enzyme-linked immunosorbent assay)

- Detectable level (Standard solution): 1ng/mL ～ 100ng/mL
- Reproducibility (CV value): Less than 10%

Operating Procedure with food sample (example)

1. Food sample
2. Add 19 fold of extraction buffer solution, and extract after crushing the sample with homogenizer
3. Centrifuge, and remove insoluble matters through filtration
4. Dilute to 10 fold with dilution buffer solution
5. ELISA Testing (3.5 hours)
6. Read the results with Plate reader

- Egg, Milk and Wheat Kit: 450nm, Buckwheat (Soba) and Peanut Kit: 405nm
- Extraction method is subject to foodstuff.

Kit Composition

A: Microtitor plate……..	96 well x 1 plate
B: Standard solution……..	500 μ L x 1 bottle
C: Buffer solution for diluting……	100mL x 1 bottle
D: Antibody conjugated with biotin……	150 μ L x 1 bottle
E: Enzyme-avidin binding Solution……	150 μ L x 1 bottle
F: Color Forming reagent……..	12mL x 1 bottle
G: Concentrated Extraction Buffer……	100mL x 1 bottle
H: Stopping Solution…….. ……	12mL x 1 bottle
I: Concentrated Washing Solution……..	100mL x 1 bottle

Further Information

See Page 53

EEM Broth

Enterobacteriaceae Enrichment Mannitol Broth for
Pre-culture of *Salmonella*

Code 1000071 – 100g

Formula (in 43.5g for 1 liter)

Peptone……...10.0g	Monopotassium Phosphate……2.0g
Mannitol…….……..…5.0g	Bile Powder……..20.0g
Disodium Phosphate…….6.45g	Brilliant Green…….……..….0.0135g
pH 7.2± 0.1	

Directions

Suspend 43.5g of the dehydrated medium in 1,000ml of distilled water, mix well to dissolve the medium. Distribute adequate amounts into sterilized test tubes or sterilized flask and then heat them at 100℃ for 30 minutes. Avoid excessive heating, or do not autoclave.
Add the specimen of about one-tenth of the medium and incubate at 37℃ for 3 hours. Stir them well after the first incubation and continue the incubation for 20 – 24 hours or more. Finally, take a loopful of the culture and subculture on an adequate selective medium.

Remarks
The medium is quite suitable for preliminary culture of *Salmonella* in food and feed.

Storage

Keep dry at room temperature.
Three (3) years after manufacturing.

Further Information
See Page 53

Buffered Peptone Water (BPW)

Buffered Peptone Water for Pre-culture of *Salmonella*

Code 05131 – 300g

Formula (in 20.0g for 1 liter)

Peptone	4.5g	Monopotassium Phosphate	1.5g
Sodium Chloride	7.2g	Disodium Phosphate	3.5g

pH 7.2±

Directions

Suspend 20.0g of the dehydrated medium in 1,000ml of distilled water, mix well to dissolve the medium. Distribute adequate amounts into sterilized test tubes or sterilized flask and then autoclave at 121℃ for 15 minutes.
Add 1/10 volume of the homogenized specimen (example: 1mL homogenized specimen put into 10mL broth) into the broth and stir them well. Incubate at 37℃ for 20 – 24 hours. Finally, take one loop of the culture and subculture on an adequate selective medium (ex. Compact Dry SL, SS agar, MLCB Agar).
For liquid Egg sample, add 0.2g L-cystein or 64mg $FeSO_4 \cdot 7H_2O$ in 1 liter of Broth.

Remarks

The medium is suitable for pre-culture of *Salmonella* in food.

Storage

Keep dry at room temperature.
Three (3) years after manufacturing.

Further Information

See Page 53

SS Agar

Selective isolation and differential medium for
Salmonella and *Shigella*

Code 05021 – 4L (240g (granule))
05020 – 20L (1,200g (granule))

Formula (in 60.0g for 1 liter)

Beef Extract……..…….. ……5.0g	Sodium Thiosulfate……..…..……..5.5g
Peptone…….……..…7.5g	Ferric Citrate……..…….....……1.0g
Bile Salts…….……..…..9.0g	Neutral Red…..…….……0.025g
Lactose…….……..10.0g	Brilliant Green…….……0.00033g
Sodium Citrate……..……8.5g	Agar……..13.5g
pH 7.3± 0.05	

Directions

Suspend 60.0g of the dehydrated medium in 1,000ml of distilled water, mix well and heat to dissolve the medium. Cool to about 50℃ and distribute about 20ml amounts to Petri dishes. Dry the surface of the plate until moisture disappears from the surface, leaving the lids of the dishes partly open for about on hour.
The medium does not require autoclaving or any other aseptic procedures.

Determinations

Inoculate the specimens heavily and incubate at 37℃ for 20 – 24 hours.
Pathogenic bacteria form semitransparent colonies
Lactose fermenters form pink or red colonies. Some strains of *Proteus* produce hydrogen sulfide and turn black. P*roteus* grown on the medium forms colonies similar to those of pathogenic bacteria.

Remarks

Features
1. The medium inhibits the growth of *E. coli* and miscellaneous bacteria.
2. The medium does not require any sterilizing procedures.
3. The medium enables to detect pathogenic bacteria easily and its detection rate is far more excellent than other media.

Note: The medium requires inoculation of a large amount of feces than in case of other selective media.

Storage

Keep dry at room temperature.
Three (3) years after manufacturing.

Further Information

See Page 53

SS Agar with Sucrose

Selective isolation and differential medium for
Salmonella and *Shigella*

Code 05032 – 280g (granule)
05033 – 20L (70g x 20 (granule))

Formula (in 70.0g for 1 liter)

Beef Extract……..…….… ……5.0g	Sodium Thiosulfate……..…….. 5.5g
Peptone……..……..…8.0g	Ferric Citrate……..……...……. 1.0g
Bile Salts……..…..8.5g	Neutral Red…..…….……0.025g
Lactose……..……..10.0g	Brilliant Green…….…… 0.00033g
Sodium Citrate……..……8.5g	Agar……..13.5g
Sucrose……..….. 10.0g	
pH 7.2± 0.05	

Directions
Suspend 60.0g of the dehydrated medium in 1,000ml of distilled water, mix well and heat to dissolve the medium. Cool to about 50℃ and distribute about 20ml amounts to Petri dishes. Dry the surface of the plate until moisture disappears from the surface, leaving the lids of the dishes partly open for about on hour.
The medium does not require autoclaving or any other aseptic procedures.

Determinations
Inoculate the specimens heavily and incubate at 37℃ for 20 – 24 hours.
Pathogenic bacteria form semitransparent colonies
Lactose fermenters form pink or red colonies. Also Sucrose fermented *Citrobacter* does not form black colonies and it can be identify easily.

Remarks
Features
4. The medium inhibits the growth of *E. coli* and miscellaneous bacteria.
5. The medium does not require any sterilizing procedures.
6. The medium enables to detect pathogenic bacteria easily and its detection rate is far more excellent than other media.

Note: The medium requires inoculation of a large amount of feces than in case of other selective media.

Storage
Keep dry at room temperature.
Three (3) years after manufacturing.

Further Information
See Page 53

Blue Light Broth

Rapid test for Coliform group and *E. coli*

Code 1000211 – 300g (Granule)

Formula (in 17.4g for 1 liter)

Peptone……..…..…....5.0g	Sodium Chloride…….. 5.0g
Sodium Pyruvate……..…1.0g	Sodium Lauryl Sulfate……..…0.1g
Dipotassium Phosphate……....4.0g	Monopotassium Phosphate…….1.0g
Potassium nitrate……..…1.0g	

Isopropyl-β-D(-)-Thiogalactopyranoside (IPTG)…….…. 0.1g
5-bromo-4-chloro-3-indolyl-β-D-galactopyranoside (X-GAL)…… 0.1g
4-Methyl-Umbelliferyl-β-D-Glucuronide (MUG)…….…. 0.1g
pH 7.1±0.2

Directions

Suspend 17.4g of the dehydrated medium in 1,000 mL of distilled water; mix well and heat to dissolve the medium. Distribute necessary amounts of medium into test tube. Sterilize by autoclaving at 121℃ for 15 minutes, and cool down rapidly for use.

Remarks

The medium is used for the test for Coliform group and *E. coli* in foodstuffs or water. Coliform group change the medium blue to blue-green after incubation at 35 – 37℃ for 24 hours. Fluorescent is observed when the positive medium is exposed to UV light (365nm), if *E. coli* was present.
X-GAL (colorimetric enzyme substrate) in the medium is decomposed to bring out blue/blue-green color by β-galactosidase produced by Coliform group.
MUG in the medium is decomposed by β-Glucuronidase to be produced by *E. coli* to isolate a fluorescence substance of 4-Methyl-Umbelliferone.

Storage

Keep dry at room temperature.
Three (3) years after manufacturing.

Further Information

See Page 53

MacConkey Agar

MacConkey Agar, Modified 2

Code 05036– 300g

Formula (in 50.0g for 1 liter)

Peptone……..……..19.0g	Crystal Violet……..…0.001g
Lactose……10.0g	Neutral Red…….……0.03g
Bile Salts…….……1.0g	Agar……..…….15.0g
Sodium Chloride……..….5.0g	
pH 7.2±0.1	

Directions

Suspend 50.0g of the dehydrated medium in 1,000 ml of distilled water, mix well and heat to dissolve the medium. Sterilize by autoclaving at 121℃ for 15 minutes, and distribute about 20ml into Petri dishes aseptically, and dry the surface of the medium before use.

Determinations

Incubate at 37℃ for 18 – 20 hours.
Pathogenic bacteria form semitransparent colonies.
Colonies of *E. coli* assume an intensely redbrick color and produce light pink or redbrick sediments around.

Remarks

Features:

1. Differentiation between pathogenic bacteria and nonpathogenic bacteria on the medium is easier than in case of Endo's or Drigalski's medium.
2. Even some organisms that cannot grow on SS Agar grow on the medium.

Note:
Aseptic procedures should be taken for this medium contrary to those of SS Agar.

Storage

Keep dry at room temperature.
Three (3) years after manufacturing.

Further Information

See Page 53

MacConkey Sorbitol Agar

Isolation medium for *E. coli* O157

Code 05643 – 300g

Formula (in 50.0g for 1 liter)

Bile Salt……..1.0g
Peptone……..…..…....19.0g
D-Sorbitol ……10.0g
Sodium Chloride.…….…..…5.0g
Crystal Violet……..……0.001g
Neutral Red……...0.03g
Agar……..…….15.0g
pH 7.2±0.1

Directions

Suspend 50.0g of the dehydrated medium in 1,000 mL of distilled water; mix well and heat to dissolve the medium. Sterilize by autoclaving at 121℃ for 15 minutes. Distribute necessary amounts of medium into Petri dish.

Remarks

The medium is used for an isolation of *E. coli* O157 based on the nature that O157 does not ferment sorbitol while other *E. coli* do. *E. coli* O157 develops a semitransparent colony after incubation at 37℃ for 18 – 20 hours. For the meanwhile other E. coli develop a redbrick color
colony with light peach or redbrick zone of desoxycholic acid precipitated.

Growths of gram positive cocci are inhibited.

Storage

Keep dry at room temperature.
Three (3) years after manufacturing.

Further Information

See Page 53

Lauryl Sulfate MUG Broth

Rapid detection of Coliform group and *E. coli*

Code 05639 – 300g

Formula (in 35.7g for 1 liter)

Peptone……....20.0g	Lactose……..……..… 5.0g
Sodium Chloride…….……5.0g	Sodium Lauryl Sulfate…… 0.1g
Dipotassium Phosphate……...2.75g	Monopotassium Phosphate….. 2.75g

4-Methyl-Umbelliferyl-β-D-Glucuronide (MUG)……..0.1g

pH 6.8±0.1

Directions

Suspend 35.7g of the dehydrated medium in 1,000 mL of distilled water; mix well and heat to dissolve the medium. Distribute 10mL of medium into middle size of test tube that contains a fermentation tube or a Durham's tube. Sterilize by autoclaving at 121℃ for 15 minutes, and cool down rapidly for use. Do not use any tubes that contain bubbles in a fermentation tube or a Durham's tube.

Remarks

The medium is used for the test for coliform group and *E. coli* in foodstuffs or water. Coliform group generate a gas after incubation at 35 – 37℃ for 16 – 24 hours. Fluorescent is observed when the positive medium is exposed to UV light (365nm), if *E. coli* is presented. MUG in the medium is decomposed by β-Glucuronidase to be produced by *E. coli* to isolate a fluorescence substance of 4-Methyl-Umbelliferone.

Storage

Keep dry at room temperature.
Three (3) years after manufacturing.

Further Information

See Page 53

X-GAL Agar

Chromogenic Enzyme substrate agar for the test of Coliform group

Code 05642 – 300g

Formula (in 44.3g for 1 liter)

Peptone……..…..…....15.0g	Yeast Extract…….……..5.0g
Sodium Pyruvate……..……1.0g	Sodium Chloride.…….……..…5.0g
Disodium Phosphate……..…2.0g	Potassium nitrate……...…1.0g
Sodium Lauryl Sulfate……...…0.15g	Agar…….15.0g

5-bromo-4-chloro-3-indolyl-β-D-galactopyranoside (X-GAL)…….……0.15g
pH 7.1±0.2

Directions

Suspend 44.3g of the dehydrated medium in 1,000 mL of distilled water; mix well and heat to dissolve the medium. Sterilize by autoclaving at 121℃ for 15 minutes. Distribute necessary amounts of medium into Petri dish.
For the mixing and dilution culture of liquid specimen, the medium may be used in pour plate technique.

Remarks

The medium is used for the test for coliform group in foods and drinks. Coliform group develop a blue to blue-green colony after incubation at 35 – 37℃ for 18 - 22 hours. Growths of almost all other bacteria are inhibited, and they develop only white colony even if they grow.

X-GAL (colorimetric enzyme substrate) in the medium is decomposed to bring out blue/blue-green color by β-galactosidase produced by coliform group.

Storage

Keep dry at room temperature.
Three (3) years after manufacturing.

Further Information

See Page 53

XM-G Agar

Chromogenic Enzyme substrate agar for the test of Coliform group and *E. coli*

Code 05647 – 300g

Formula (in 39.3g for 1 liter)

Peptone……..…..…....10.0g	Sodium Pyruvate…….……...…1.0g
L-Tryptophan……1.0g	D-Sorbitol…… 1.0g
Sodium Chloride.…….……..…5.0g	Monopotassium Phosphate……...2.2g
Dipotassium Phosphate…….....2.7g	Potassium nitrate……...… 1.0g
Sodium Lauryl Sulfate……..…0.2g	Agar……15.0g

5-bromo-4-chloro-3-indolyl-β-D-glucuronide (X-GLUC)……..…0.1g
5-bromo-6-chloro-3-indolyl-β-D-galactopyranoside (MAGENTA-GAL)……0.1g
pH 7.0±0.2

Directions

Suspend 39.3g of the dehydrated medium in 1,000 mL of distilled water; mix well and heat to dissolve the medium. Sterilize by autoclaving at 121℃ for 15 minutes. Distribute necessary amounts of medium into Petri dish.

Remarks

The medium is used for the screening test for *E. coli* and coliform group. *E. coli* has a β-glucuronidase that decomposes the substrate of X-GLUC to produce blue dye. For the meanwhile Coliform group have a β-galactosidase that decomposes the substrate of MAGENTA-GAL to produce red dye. E. coli has both enzymes, and may produce a blue to blue purple color.

Since *E. coli* O157 does not have a β-glucuronidase, they are identified as a Coliform group. Incubate at 35℃ for 20±2 hours. Over-time incubation may foster growth of microorganism other than *E. coli* and Coliform group. Red color may be observed if the sample contains lactobacilli that has also a β-galactosidase.

Storage

Keep dry at room temperature.
Three (3) years after manufacturing.

Further Information

See Page 53

Staphylococcus Medium No. 110

Selective isolation medium for Staphylococci

Code 05234 – 300g

Formula (in 150.0g for 1 liter)

Peptone……10.0g	Sodium Chloride……75.0g
Yeast Extract……2.5g	Lactose……2.0g
Gelatin……30.0g	Dipotassium Phosphate……5.0g
Mannitol……10.0g	Agar……15.0g
pH 7.5±0.1	

]

Directions

Suspend 150.0g of the dehydrated medium in 1,000 ml of distilled water; mix well and heat to dissolve the medium. Sterilize by autoclaving at 121℃ for 15 minutes. Distribute about 20ml of the medium into Petri dishes. Dry the surface of the plate before use.

Determinations

Incubate at 30℃ for 48 hours or 37℃ for 43 hours.
Pathogenic staphylococci form yellowish or lemon-colored colonies on the medium and have abilities to utilize mannitol, to liquefy gelatin (positive to Stone reaction), to coagulate plasma and to hemolyze rabbit blood.

Remarks

1. Most of bacteria except staphylococci are inhibited on the medium, and some of the non-pathogenic staphylococci are also inhibited to some extent.
2. Pathogenic staphylococci generally form yellowish or lemon-colored colonies on the medium, while non-pathogenic strains form white ones.
3. The ability for producing pigment, utilizing mannitol and liquefying gelatin can be directly examined on the medium.

Storage

Keep dry at room temperature.
Three (3) years after manufacturing.

Further Information

See Page 53

Mannitol Salt Agar

For isolation of *Staphylococcus*

Code 05236 –300g (granule)

Formula (in 111.0g for 1 liter)

Beef Extract……1.0g	D-Mannitol……..……..10.0g
Peptone…….……..……...10.0g	Phenol Red……..…….0.025g
Sodium Chloride……..75.0g	Agar……15.0g
pH 7.55±0.1	

Directions

Suspend 111.0g of the dehydrated medium in 1,000 ml of distilled water; mix well and heat to dissolve the medium. Sterilize by autoclaving at 121℃ for 15 minutes. Distribute about 20ml of the medium into Petri dishes. Dry the surface of the plate before use.

Determinations

Incubate at 30℃ for 48 hours or 37℃ for 36 hours.
When staphylococci, which utilize mannitol, grow on the medium, they form yellow colonies and turn the medium around the colonies yellow, and *Staphylococcus aureus* can easily be differentiated from non–pathogenic staphylococci and other bacteria that do not utilize mannitol and form red colonies.

Remarks

As the medium contains salt of high concentration, non-halophytic bacteria are inhibited to grow, and staphylococci are selectively isolated. Checking the ability to utilize mannitol performs the screening test of pathogenic staphylococci

For differential medium of coagulase positive staphylococci, add egg yolk solution to the medium. To prepare the 10% salt egg yolk agar medium, suspend 111.0g of the dehydrated medium in 900 ml of distilled water, sterilize by autoclaving and cool down to 50℃, to which add 100 ml of egg yolk solution (Mixture of about 20g of egg yolk and 80 ml sterilized physiological saline solution).

Storage

Keep dry at room temperature.
Three (3) years after manufacturing.

Further Information

See Page 53

For Isolation of *Enterococcus*

EF Agar Base

(Appended reagent: TTC)

Code 05679 – 100g

Formula (in 54.5g for 1 liter)

Calf Brain Extract Powder……8.5g Beef Heart Extract Powder…8.5g
Peptone……..…..10.0g Dextrose…….……..…10.0g
Dipotassium Phosphate……..….2.5g Brom Thymol Blue……..…..0.032g
Agar……..…15.0g
2,3,5-Triphenyltetrazolium Chloride (TTC) (Appended reagent)…….……0.15g
pH 7.2±0.1

Directions

Suspend 54.5g of the dehydrated medium together with 0.25g of Sodium azide in 1,000 mL of distilled water; mix well and heat to dissolve the medium. Keep at around 60℃, and then add 10mL of 1.5% TTC solution. Mix well and distribute the medium into Petri dishes.

1.5% TTC solution: Dissolve 0.15g of TTC (appended to the medium) in 10mL of distilled water, and store in brown bottle in dark and cool place.

Remarks

The medium is used for an isolation of *Enterococcus* in faces, water, milk, dairy products and processed meat.
Incubate at 35 – 37℃ for 48 hours. *E. faecalis* forms pink or red brown colonies 0.5 – 2mm in diameter, while *E. faecium* forms yellow colonies. Growths of gram-negative bacilli are inhibited.

Since Enterococcus is an indicator of fecal pollution as in case of Coliform, the detection of it is important for the survey of fecal pollution.

Storage

Keep dry at room temperature. Three (3) years after manufacturing.

Further Information

See Page 53

NGKG Agar Base

For selective isolation of *Bacillus cereus*

Code 05282 – 300g (granule)

Formula (in 26.5g for 1 liter)

Peptone……...1.0g	Polymyxin B Sulfate…..… 50,000unit
Yeast Extract…..……..…0.5g	Phenol Red…….…… 0.025g
Sodium Chloride …… 4.0g	Agar…….……...18.0g
Glycine……..…3.0g	
pH 6.8±0.1	

Directions

Suspend 26.5g of the dehydrated medium in 900ml of distilled water; mix well and heat to dissolve the medium. Sterilize by autoclaving at 121℃ for 15 minutes. Maintain the medium at about 50℃, add 100ml of 20% egg-yolk suspension, mix well and distribute about 20ml amounts into Petri dishes.
For the preparation of egg-yolk suspension, add 20ml of egg-yolk to 80ml of sterilized saline solution aseptically, and mix well.

Determinations

After drying the surface of the plate, smear the specimens and incubate at 30℃ for 18 – 24 hours.
B. cereus forms white and slightly thick colonies with an irregular margin on the medium and shows the lecithinase reaction. In case of the lecithinase reaction, their colonies form a zone of opacity, and the medium around the colonies presents a red color. The growth of miscellaneous bacteria except *B. cereus* may be inhibited. Even if some bacteria grow, their colonies are small and do not show the lecithinase reaction.

Remarks

The medium was designed for the selection and detection of *B. cereus* from the contaminated foods.
On the medium, the spores of *B. cereus* are formed well. After incubation at 30℃ for 18 hours, the sporulation can be determined by observing them microscopically.

Storage

Keep dry at room temperature.
Three (3) years after manufacturing.

Further Information

See Page 53

GAM Agar, Modified

(For common anaerobic culture and susceptibility test)
(**G**ifu **A**naerobic **M**edium Agar, Modified)

Code 05426 – 300g

Formula (in 56.7g for 1 liter)

Peptone……5.0g	L-Tryptophan……0.2g
Soya Peptone……3.0g	Monopotassium Phosphate……2.5g
Proteose Peptone……5.0g	Sodium Chloride……3.0g
Digested Serum……10.0g	L-Cysteine Hydrochloride……0.3g
Yeast Extract……2.5g	Sodium Thioglycollate……0.3g
Beef Extract……2.2g	L-Arginine……1.0g
Liver Extract……1.2g	Vitamin K_1……5mg
Dextrose……0.5g	Hemin……10mg
Soluble Starch……5.0g	Agar……15.0g
pH 7.3±0.1	

Directions

Suspend 56.7g of the dehydrated medium in 1,000 ml of distilled water, and heat to dissolve the medium. Sterilize by autoclaving at 115℃ for 15 minutes. Distribute the medium into Petri dishes.
Prepared medium should be used in a day of preparation, or keep in anaerobic condition.

Remark

The medium is a modified medium of GAM Agar that is developed by Medical School of Gifu University, Japan to isolate and culture anaerobic bacteria from clinical specimens. The medium is also used for susceptibility tests other than sulfa drugs.
Color of the medium is more pale and better transparency

Storage

Keep dry at room temperature.
Three (3) years after manufacturing.

Further Information

See Page 53

GAM Broth, Modified

(For common anaerobic culture and susceptibility test)
(**G**ifu **A**naerobic **M**edium Broth, Modified)

Code 05433 –100g

Formula (in 41.7g for 1 liter)

Peptone……5.0g	L-Tryptophan……0.2g
Soya Peptone……3.0g	Monopotassium Phosphate……2.5g
Proteose Peptone……5.0g	Sodium Chloride……3.0g
Digested Serum……10.0g	L-Cysteine Hydrochloride……0.3g
Yeast Extract……2.5g	Sodium Thioglycollate……0.3g
Beef Extract……2.2g	L-Arginine……1.0g
Liver Extract……1.2g	Vitamin K_1……5mg
Dextrose……0.5g	Hemin……10mg
Soluble Starch……5.0g	
pH 7.3±0.1	

Directions

Suspend 41.7g of the dehydrated medium in 1,000 ml of distilled water, and heat to dissolve the medium. Distribute the medium into appropriate containers. Sterilize by autoclaving at 115℃ for 15 minutes, and cool down quickly (Do not shake the medium!).

Remark

The composition of the medium is exactly same as GAM Agar, Modified excluding agar. The medium is liquid and used for isolation and cultivation of anaerobic bacteria from clinical specimens. The medium is also used for susceptibility tests other than sulfa drugs, in particular for the micro liquid dilution method of anaerobic bacteria.

Storage

Keep dry at room temperature.
Three (3) years after manufacturing.

Further Information

See Page 53

Bacteroides Agar

For differentiation and selective isolation of *Fusobacterium* and *Bacteroides*

Code 05440 – 100g

Formula (in 74.0g for 1 liter)

Peptone……..……...20.0g	Monopotassium Phosphate.……..….2.5g
Soya Peptone……..……..1.5g	Sodium Chloride……..…..…….3.0g
Digested Serum Powder……6.75g	Soluble Starch…….……5.0g
Liver Extract……..….0.6g	L-Cysteine Hydrochloride……..0.3g
Meat Extract……6.15g	Sodium Thioglycollate…….……0.3g
Yeast Extract……10.0g	Colistin……..….1,000,000 units
Hemin……..…...0.003g	Neomycin…….……..…0.2g
Dextrose……..……3.0g	Brilliant Green……..…0.001g
Agar……14.7g	pH 7.1±0.1

Directions

Suspend 74.0g of the dehydrated medium in 1,000ml of distilled water; mix well and heat to dissolve the medium. Sterilize by autoclaving at 121℃ for 15 minutes, and distribute the medium into Petri dishes. Dry the surface sufficiently before use. It is desirable to use the plate within 3 – 5 hours after preparation.

Determinations

Differentiation: The medium is able to identify *Bacteroides* from the organisms that are isolated from clinical specimens and confirmed to be asporogenic gram-negative bacilli of obligate anaerobes. Inoculate the bacilli into GAM Semisolid and incubate for 24 – 48 hours. Take the organisms, streak the surface of the plate, and incubate at 37℃ for 24 – 48 hours under an anaerobic condition. The organisms are identified as *Bacteroides*, when they grow well on this plate.

Selective isolation: When clinical specimens are considered to be lightly contaminated with other organisms, *Bacteroides* can be isolated selectively by smearing them directly. (*Fusobacterium* does not grow on this medium, but some aerobic cocci may grow on it).

For the quantitative culture, dilute a sample with the following solution (prepared by 1/15M phosphate-buffered solution, pH 7.2, containing 1g of polysorbate 80, 1g of L-cysteine hydrochloride and 1g of agar per liter by autoclaving at 110℃ for 15 minutes).

Remarks

The medium was devised for the differentiation of *Bacteroides*. Colistin, neomycin and brilliant green have no influence on the growth of *Bacteroides* but inhibit *Fusobacterium* and other bacteria. Asporogenic gram-negative bacilli taken from the clinical specimens are mainly *Bacteroides* or *Fusobacterium*. The medium also permits the selective growth of *Bacteroides* from the clinical specimens.

Storage

Keep dry at room temperature.

Three (3) years after manufacturing.

Further Information

See Page 53

FM Agar, Modified

For differentiation and selective isolation of *Fusobacterium*

Code 05441 – 100g

Formula (in 74.0g for 1 liter)

Peptone……..……...20.0g	Monopotassium Phosphate.……..….2.5g
Soya Peptone…….……...…….1.5g	Sodium Chloride……..…..…….3.0g
Digested Serum Powder…… 6.75g	Soluble Starch…….……5.0g
Liver Extract……..…. 0.6g	L-Cysteine Hydrochloride……..0.3g
Meat Extract…… 6.15g	Sodium Thioglycollate…….……0.3g
Yeast Extract……10.0g	Neomycin…….……..…0.2g
Dextrose……..……3.0g	Crystal Violet……..…… …0.01g
Agar……14.7g	
pH 7.1±0.1	

Directions

Suspend 74.0g of the dehydrated medium in 1,000ml of distilled water, and heat to dissolve the medium. Do not sterilize by autoclaving. Distribute the medium into Petri dishes. It is recommended to use the medium in 3 – 5 hours after preparation.

Determination

The medium is designed to differentiate *Fusobacterium*. Neomycin and crystal violet have no influence on the growth of *Fusobacterium,* but inhibit *Bacteroides* and other bacteria.

Since it is well known fact that almost all gram-negative rods, which do not form spore, are *Fusobacterium* and *Bacteroides*. the medium is used for the isolation of *Fusobacterium.* Among of non-spore forming, gram-negative anaerobic rods, and the bacteria grown on the medium is to be identified as *Fusobacterium.*

Remarks

To prepare the medium, heating should be minimum, and use the medium in 3 – 5 hours after preparation.
Incubate the medium avoiding excess disclosure to the air.

Storage

Keep dry at room temperature.
Three (3) years after manufacturing.

Further Information

See Page 53

ANAERO MATE-P
ANAERO MATE-J

Simple Anaerobic Culture System

Code Anaero Mate-P – 06593 (For 100 plates: 50 set x for 2 plates)
Anaero Mate-J – 06594 (For 500 plates: 50 set x for 10 plates)

Set component

Anaerobic Culture Bag……50 pcs
Anaerobic Culture Agent (absorb oxygen and generate carbon dioxide)……50 pcs
Oxygen Detector ……50 pcs
Seal Bar……2 pcs

Directions

Set petri dishes (plates) in Anaerobic Culture Bag, and then put Anaerobic Culture Agent and Oxygen detector in the bag subsequently. Seal the bag with Seal Bar immediately and put the whole bag(s) in incubator for cultivation.

Storage

Keep at 2 – 8℃. Do not freeze.
One year (12 months) after manufacturing.

Further Information

See Page 53

Heart Infusion Agar

For isolation of general bacteria

Code 05503– 300g (Granule)

Formula (in 40.0g for 1 liter)

Heart Extract Powder……..……10.0g Sodium Chloride……..……5.0g
Peptone……..…..10.0g Agar……..…..……15.0g
pH 7.4±0.1

Directions

Suspend 40.0g of the dehydrated medium in 1,000 ml of distilled water; mix well and heat to dissolve the medium. Sterilize by autoclaving at 121℃ for 15 minutes. Distribute into Petri dishes or test tubes according to the purpose.

Remarks

Since the medium has an excellent ability to support the growth of bacteria, it is suitable for the cultivation of many fastidious pathogenic bacteria.

Since *E. coli, Salmonella* and *Shigella*, which frequently mutate, are stable during the preservation on this medium, it is useful for the test of their antigenicity and virulence.

Storage

Keep dry at room temperature.
Three (3) years after manufacturing.

Further Information

See Page 53

Heart Infusion Broth

For isolation of general bacteria

Code 05505– 100g

Formula (in 25.0g for 1 liter)

Heart Extract Powder……..……10.0g Sodium Chloride……..……5.0g
Peptone……..…..10.0g
pH 7.2±0.1

Directions

Suspend 25.0g of the dehydrated medium in 1,000 ml of distilled water; mix well and heat to dissolve the medium. Distribute into adequate containers according to the purpose, and sterilize by autoclaving at 121℃ for 15 minutes.

Remarks

Since the medium has an excellent ability to support the growth of many kinds of bacteria, it is suitable for the cultivation and preservation of many fastidious bacteria.

The medium does not affect the biological nature of bacteria, and it is also suitable for precise biological tests.

The medium may be employed in the routine cultivation and for various other purposes, because the medium does not contain any carbohydrate such as dextrose.

Storage

Keep dry at room temperature.
Three (3) years after manufacturing.

Further Information

See Page 53

Brain Heart Infusion Agar

For isolation of general bacteria

Code 05506– 300g

Formula (in 50.0g for 1 liter)

Calf Brain Extract Powder……7.5g	Heart Extract Powder……..8.0g
Peptone……..…..10.0g	Dextrose…….2.0g
Sodium Chloride……..5.0g	Dipotassium Phosphate……...2.5g
Agar……..15.0g	
pH 7.2±0.1	

Directions

Suspend 50.0g of the dehydrated medium in 1,000 ml of distilled water; mix well and heat to dissolve the medium. Sterilize by autoclaving at 121℃ for 15 minutes. Use as plates or slants.

Remarks

Since the medium has an excellent ability to support the growth of many kinds of bacteria, it is suitable for the cultivation and preservation of many nutritionally fastidious bacteria.

The medium does not affect the biological nature of bacteria, and it is suitable for precise biological tests.

Storage

Keep dry at room temperature.
Three (3) years after manufacturing.

Further Information

See Page 53

Brain Heart Infusion Broth

For isolation of general bacteria

Code 05508– 300g

Formula (in 35.0g for 1 liter)

Calf Brain Extract Powder……	7.5g	Heart Extract Powder……..	8.0g
Peptone……..…...	10.0g	Dextrose……..	2.0g
Sodium Chloride……..	5.0g	Dipotassium Phosphate……...	2.5g

pH 7.2±0.1

Directions

Suspend 35.0g of the dehydrated medium in 1,000 ml of distilled water; mix well and heat to dissolve the medium. Sterilize by autoclaving at 121℃ for 15 minutes.

Remarks

Since the medium has an excellent ability to support the growth of many kinds of bacteria, it is suitable for the cultivation and preservation of many nutritionally fastidious bacteria. The medium is also used for the cultivation of blood specimens.

The medium does not affect the biological nature of bacteria, and it is suitable for precise biological tests.

Storage

Keep dry at room temperature.
Three (3) years after manufacturing.

Further Information

See Page 53

Trypto-Soya Agar

SCD Agar

For isolation of general bacteria

Code 05516 – 300g (Granule)

Formula (in 40.0g for 1 liter)

Peptone……15.0g	Sodium Chloride……..……..5.0g
Soya Peptone…….……..…..5.0g	Agar……..…….15.0g

pH 7.2±0.1

Directions

Suspend 40.0g of the dehydrated medium in 1,000 ml of distilled water; mix well and heat to dissolve the medium. Sterilize by autoclaving at 121℃ for 15 minutes. Use as plates or slants.

Remarks

The medium is fit for various purposes because it permits the growth of fastidious bacteria that do grow on Nutrient Agar or Heart Infusion Agar, and is markedly superior to conventional media as a basal medium of blood agar.

Storage

Keep dry at room temperature.
Three (3) years after manufacturing.

Further Information

See Page 53

Mueller-Hinton Agar-N

For isolation of general bacteria

Code 05533 – 300g

Formula (in 38.0g for 1 liter)

Beef extract	2.0g	Casamino acid	17.5g
Soluble starch	1.5g	Agar	17.0g

pH 7.3±0.1

Directions

Suspend 38.0g of the dehydrated medium in 1,000 ml of distilled water; mix well and heat to dissolve the medium. Sterilize by autoclaving at 121℃ for 15 minutes. Use for plates and thickness of medium shall be 4mm (for 9cm plate, pour 25mL of autoclaved medium).

Remarks

This medium is also fit for Anti-susceptibility testing which applicable for K-B method (following to NCCLS document M2-A6).

Storage

Keep dry at room temperature.
Three (3) years after manufacturing.

Further Information

See Page 53

Sabouraud Agar

For isolation of Yeast and Mold

Code 05701 – 300g

Formula (in 65.0g for 1 liter)

Peptone……..…..10.0g Agar…….……..15.0g
Dextrose……..40.0g
pH 5.9± 0.2

Directions

Suspend 65.0g of the dehydrated medium in 1,000 mL of distilled water; mix well and heat to dissolve the medium. Sterilize by autoclaving at 121℃ for 15 minutes, and use as a plate or a slant.

Determinations

Incubate at 37℃ or at 25℃. For the isolation of *Candida*, incubate for 48 – 72 hours and in case of other fungi, incubation for 5 days may sometimes be necessary.
Candida forms colonies with white, opaque, and wet swelling, which gradually change to light brown.

Remarks

Growth of *Candida* on the medium is so well that it can survive for a long period without morphological variations.
As the medium cannot inhibit the contaminant microbes, it is desirable to use the selective media such as Mycobiotic Agar and Candida GE agar simultaneously for the isolation.

Storage

Keep dry at room temperature.
Three (3) years after manufacturing.

Further Information

See Page 53

Candida GE Agar

For isolation of *Candida*

Code 05703 – 100g

Formula (in 62.0g for 1 liter)

Yeast Extract……10.0g Nitrofuran derivative……0.5g
Peptone……...……...8.5g Agar……..…..13.0g
Dextrose……30.0g
pH 6.0±0.1

Directions

Suspend 62.0g of the dehydrated medium in 1,000mL of distilled water; mix well and heat to dissolve the medium. Distribute about 15 – 20mL amounts into Petri dishes. No sterilizing procedure such as autoclaving is needed.

Determinations

After drying the surface, inoculate the slime in oral or vaginal secreta with a sterilized swab and spread on the surface of the medium. Incubate at 35 – 37℃ for 2 – 3 days.
Candida forms specific colonies that are round or oval in shape with a diameter of 3 – 5mm and are wet and opaque, and have specific odor and luster.
C. albicans forms colonies of creamy or off-white color after 48 – 72 hours incubation, which gradually turn pale brownish.
C. krusei forms flat and irregularly shaped colonies with no luster, while the other *Candida* form brown or pale brown colonies.

Remarks

Features:
1. The medium inhibits the growth of miscellaneous bacteria and permits the growth of *Candida* specifically.
2. Nitrofuran derivative markedly or completely inhibits gram-negative bacilli. Therefore the medium facilitates the detection of Candida.

Note:
It is necessary to smear the specimens heavily on the medium.

Storage

Keep dray at room temperature.
Three (3) years after manufacturing.

Further Information

See Page 53

ID Test EB-20

Identification Test Kit for Glucose fermentative Gram Negative bacilli

Code 06626 – 25 tests
06628 – ID Test EB-20 EB Reagent 100 tests
06615 – ID Test EB-20 EB Plate 100 tests (additional plates)
06616 – ID Test EB-20 EB Broth 100 tests (additional broth)

Kit component (06626)

ID Test EB Plate……...25 plates x 20 wells
Sterilized Liquid Paraffin……20mL x 1 vial
Result Form……... ……13 sheets x 2 sets
ID Test EB Broth……2.5mL x 25 tubes
Color Chart……... 1 sheet

Kit component (06628) for 100 tests

10% Ferric Chloride Test solution.... …… 6mL x 1 vial
Kovacs' Reagent…… 6mL x 1 vial
6% α-naphthol Test solution……6mL x 1 vial
40% Potassium Hydroxide Test solution… 6mL x 1 vial

Features of ID Test EB-20

Identification of bacteria is very complicated and there are so many biochemical test need to be done. ID Test EB-20 is based on the theory of the numerical classification method, which could receive the combination with 20 kinds of biochemical reactions.
Only small amount of sample (0.1mL) is needed for each test item. Also the kit is stable for 1 year at room temperature.

Purpose of ID Test EB-20

Identification of Glucose fermentative Gram Negative bacilli

Directions for operation of the kit

1. Streak samples onto blood agar or other isolation medium. After incubation of the medium, confirm colonies will be tested are Gram Negative bacilli and Glucose fermentative.
2. The test target bacteria shall be proliferated on enrichment medium.
3. Fish colonies from enrichment medium for adjustment the concentration (suspension) that corresponds to No.1 McFarland turbidity standard.
4. Inoculate 0.1mL of above suspension into each well (20 wells). Layer 3-5 drops of sterilized liquid paraffin on 8 certain wells and incubate (place the cover on the plate and incubate at 37℃ for 18 – 20 hours.
5. After incubation, add 1 drop of 10% Ferric Chloride Test solution (PPA), Kovacs' Reagent (IND), 6% α-naphthol Test solution and 40% Potassium Hydroxide Test solution (VP) into certain wells.
6. After addition of specific reagents, compare the color developed with the attached color chart and determine as positive or negative results. Simultaneously, an oxidase test shall be performed and record in the result form.

Interpretations

Refer ID Test EB-20 ANALYTICAL PROFILE for identification.

Storage and shelf life

Code 06626: Keep at Room Temperature. One year (12 months) after manufacturing.
Code 06628: Keep at 2 – 10℃. One year (12 months) after manufacturing.

Further Information

See Page 53

ID Test NF-18

Identification Test Kit for Glucose Non-fermentative Gram Negative bacilli

Code 06629 – 25 tests
06631 – ID Test NF-18 NF Reagent 100 tests
06617 – ID Test NF-18 NF Plate 100 tests (additional plates)
06618 – ID Test NF-18 NF Broth 100 tests (additional broth)

Kit component (06629)

ID Test NF Plate……...25 plates x 18 wells
Sterilized Liquid Paraffin……20mL x 1 vial
Result Form……... ……13 sheets x 2 sets
ID Test NF Broth……2.5mL x 25 tubes
Color Chart……... 1 sheet

Kit component (06631) for 100 tests

Kovacs' Reagent...……6mL x 1 vial
Nitrite Detection Test Solution I…… 6mL x 1 vial
Nitrite Detection Test Solution II…….……6mL x 1 vial
Zinc Powder…….…… 6mL x 1 vial

Features of ID Test NF-18

Identification of bacteria is very complicated and there are so many biochemical test need to be done. ID Test NF-18 is based on the theory of the numerical classification method, which could receive the combination with 18 kinds of biochemical reactions.
Only small amount of sample (0.1mL) is needed for each test item. Also the kit is stable for 1 year at room temperature.

Purpose of ID Test NF-18

Identification of Glucose Non-fermentative Gram Negative bacilli

Directions for operation of the kit

1. Streak samples onto blood agar or other isolation medium. After incubation of the medium, confirm colonies will be tested are Gram Negative bacilli and Glucose fermentative.
2. The test target bacteria shall be proliferated on enrichment medium.
3. Fish colonies from enrichment medium for adjustment the concentration (suspension) that corresponds to No.0.5 McFarland turbidity standard.
4. Inoculate 0.1mL of above suspension into each well (18 wells). Layer 3-5 drops of sterilized liquid paraffin on 9 certain wells and incubate (place the cover on the plate and incubate at 30 or 37℃ for 22 – 24 hours.
5. After incubation, add 1 drop of Kovacs' Reagent (IND), Nitrate Detection Test Solution (I and II) (NIT) into certain wells.
6. After addition of specific reagents, compare the color developed with the attached color chart and determine as positive or negative results. Simultaneously, an oxidase test shall be performed and record in the result form.

Interpretations

Refer ID Test NF-18 ANALYTICAL PROFILE for identification.

Storage and shelf life

Code 06629: Keep at Room Temperature. One year (12 months) after manufacturing.
Code 06631: Keep at 2 – 10℃. One year (12 months) after manufacturing.

Further Information

See Page 53

N-ID Test SP-18

Identification Test Kit for Staphylococci

Code 06637 – 25 tests
06638 – N-ID Test SP-18 SP Reagent 100 tests
06613 – N-ID Test SP-18 SP Plate 100 tests (additional plates)
06614 – N-ID Test SP-18 SP Broth 100 tests (additional broth)

Kit component (06637)

N-ID Test SP Plate…….25 plates x 18 wells
Sterilized Liquid Paraffin……20mL x 1 vial
Result Form……... ……13 sheets x 2 sets
N-ID Test SP Broth……2.5mL x 25 tubes
Color Chart……... 1 sheet

Kit component (06638) for 100 tests

6% α-naphthol Test solution……6mL x 1 vial
40% Potassium Hydroxide Test solution… 6mL x 1 vial
Nitrite Detection Test Solution I…… 6mL x 1 vial
Nitrite Detection Test Solution II……6mL x 1 vial

Features of N-ID Test SP-18

Identification of bacteria is very complicated and there are so many biochemical test need to be done. N-ID Test SP-18 is based on the theory of the numerical classification method, which could receive the combination with 18 kinds of biochemical reactions.
Only small amount of sample (0.1mL) is needed for each test item. Also the kit is stable for 1 year at room temperature.

Purpose of ID Test SP-18

For identification of various species of Staphylococci.

Directions for operation of the kit

1. Streak samples onto blood agar or other isolation medium. After incubation of the medium, confirm colonies will be tested are Gram Negative bacilli and Glucose fermentative.
2. The test target bacteria shall be proliferated on enrichment medium.
3. Fish colonies from enrichment medium for adjustment the concentration (suspension) that corresponds to No.3 McFarland turbidity standard.
4. Inoculate 0.1mL of above suspension into each well (18 wells). Layer 3-5 drops of sterilized liquid paraffin on 2 certain wells and incubate (place the cover on the plate and incubate at 30 or 37℃ for 22 – 24 hours. (Wells 1 and 2 are empty wells and inoculation of bacterial sample solution is not necessary.
5. After incubation, add 1 drop of Kovacs' Reagent (IND), 6% α-naphthol and 40% Potassium Hydroxide Test solution (VP) into certain wells.
6. After addition of specific reagents, compare the color developed with the attached color chart and determine as positive or negative results.

Interpretations

Refer N-ID Test SP-18 ANALYTICAL PROFILE for identification.

Storage and shelf life

Code 06637: Keep at Room Temperature. One year (12 months) after manufacturing.
Code 06638: Keep at 2 – 10℃. One year (12 months) after manufacturing.

Further Information

Germany / Austria / Switzerland

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