SNAPSHOOT
ENGINEERED FOR A SAFER TOMORROW

현장을 이해하고, 필요한 솔루션을 연결합니다.

산업안전 · 추락방지 시스템
산업용 소재 · 건축자재
제품 제안부터 공급·시공·설치·교육까지



COMPANY INFORMATION

스냅슛 (SNAPSHOOT)

ADDRESS (15431) 경기도 안산시 단원구 풍전로 37-9 트리플렉스 301동 118호
TEL 0507-1374-9229
FAX 0504-481-6749
E-MAIL bkkim@snapshoot.co.kr

TECHNICAL DOCUMENTS

인증서 · 데이터시트 · 기술자료

제품의 규격과 성능, 인증 및 적용 조건을 확인하기 위한 자료입니다.

ABOUT SNAPSHOOT

제품 공급을 넘어, 현장에 맞는 해결책으로

스냅슛은 산업현장의 작업 환경과 요구 조건을 바탕으로
적합한 제품과 시스템을 제안합니다. 현장 실사를 통해 설치 조건을 확인하고,
공급부터 시공·설치 및 사용 교육까지 필요한 과정을 함께합니다.

추락방지 시스템

안전대부착설비 · 수평·수직 라이프라인
레일 시스템 · 리지드 포스트

밀폐공간 진입·구조 솔루션

데빗암 · 삼각대 · 구조용 윈치
윈치 안전블록 · 구조장비

산업안전 보호구

전신형 안전대 · 랜야드 · 안전블록
작업 환경에 맞춘 개인보호구

산업용 소재·건축자재

산업용 테이프 · 접착제 · 기능성 소재
구조용 스크류 · 목조건축 자재

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홈페이지 바로가기 →
문서 라이브러리 바로가기 →
시공사례 바로가기 →
문의하기 →

본 페이지는 스냅슛의 자료 제공 안내용 표지입니다. 첨부된 인증서 및 기술자료의 발행 주체, 인증 대상과 적용 범위는 해당 원문을 기준으로 확인해 주세요.

m-Endo Broth, 2 mL

Product Number: 6500



Medium Composition	
Lactose	12.5 g
Papaic Digest of Soy Flour	10.0 g
Enzymatic Digest of Animal Tissue	5.0 g
Pancreatic Digest of Casein	5.0 g
Sodium Chloride	5.0 g
Potassium Phosphate, dibasic	4.375 g
Potassium Phosphate, monobasic	1.375 g
Sodium Sulfite	2.1 g
Yeast Extract	1.5 g
Sodium Lauryl Sulfate	0.05 g
Sodium Deoxycholate	0.1 g
Basic Fuchsin	1.05 g
Final pH: 7.2 ± 0.2 at 25°C	

Formula may be adjusted and/or supplemented as required to meet performance specifications.

Physical Characteristics
Appearance of Medium: Hazy to opalescent with or without a precipitate, peach to pink
pH at 25°C: 7.2 ± 0.2

Intended Use

Ampouled m-Endo Broth, 2 mL is used for enumerating coliforms in water by the membrane filtration method.

Product Summary

m-Endo Broth, 2 mL is a ready to use medium for membrane filtration testing. This medium is prepared according to the formula of Fifield and Schaufus,[1] and used for the detection of coliforms in water. It is recommended by the American Public Health Association (APHA) in total coliform membrane filtration procedure for testing water, wastewater, and foods.[2,3] The US Environmental Protection Agency (EPA) specifies using m-Endo broth in the total coliform methods for testing drinking water, surface water, and saline water.[4,5] The total coliform test is the primary indicator of bacteriological quality for potable water, distribution system water, and public water supplies because it is a larger measure of pollution than the fecal coliform test.[4,5]

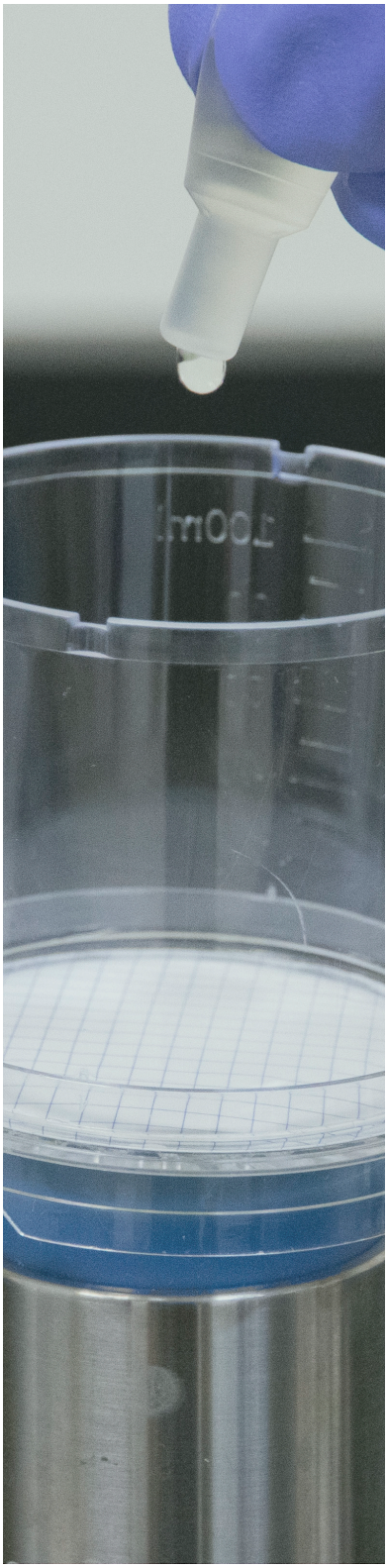
Principles of the Procedure

Enzymatic digest of casein, enzymatic digest of animal tissue, and papaic digest of soy flour provide nitrogen, carbon, and minerals in m-Endo Broth. Yeast extract is a source of vitamins and trace elements to stimulate bacterial growth. Potassium phosphates are buffering agents. Sodium chloride maintains the osmotic balance. Lactose serves as a carbohydrate source. Sodium lauryl sulfate and sodium deoxycholate are selective agents used to inhibit gram-positive bacteria. Basic fuchsin is a pH indicator. Sodium sulfite is added to decolorize the basic fuchsin solution. Ethanol aids in the homogeneity of the solution and as a selective agent.

Lactose is the fermentable carbohydrate. Lactose positive colonies exhibit a red color caused by the aldehyde reaction with the sodium sulfite and basic fuchsin. The development of a metallic sheen occurs when the organism produces aldehydes with the fermentation of lactose. Lactose non-fermenting bacteria form clear, colorless colonies.

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Test Procedure

Preparation

1. Assemble the manifold or filtration flask that will supply the vacuum source, complete with rubber stopper.
2. Using a gentle twisting motion, secure the funnel adapter into the stopper.
3. Using the same gentle twisting motion, secure the NEOGEN Filter onto the funnel adapter.

Filtration Procedure

1. Remove filtration cover and carefully pour the sample onto the filter.
2. Apply vacuum just long enough to pull the sample through the filter. (If using a manifold, open only one valve at a time.)
3. Rinse the inside walls of the filter funnel with approximately 20 mL of sterile buffered solution. Apply vacuum just long enough to pull the solution through the filter, and turn off vacuum. Note: this step is optional if only water is being tested.
4. Briefly remove the filter and its funnel adapter from the stopper to release any remaining vacuum pressure, and then resecure into the stopper.
5. Add m-Endo Broth onto the top of the filter. When doing so, be careful not to touch the filter with the tip of the ampoule.
6. Very briefly apply vacuum so that the media does not pool on top of the filter, and is visible underneath the filter. (Note: the media has been soaked correctly into the filter if there is a small pocket of air around the bottom port. The filter should be moist, but not oversaturated or dry.)
7. Remove and appropriately discard the plastic funnel. Place the filtration system cover over the filter/base assembly converting the unit to a petri dish for sample incubation.
8. Remove the filter from the funnel adapter and place a plug on the open bottom port.
9. Place the filtration plate into the incubator inverted so that the cover is on the bottom, and incubated at 35 ± 2°C. Record results after 18–48 hours.
10. Dispose of test materials in accordance with all applicable local, state, and federal regulations.

Expected Cultural Response

Sterile water was added to sterile filtration units and inoculated with the cultures listed below. The inoculum was filtered followed by the ampoulized m-Endo Broth and the filtration housing removed. Plates were incubated aerobically at 35 ± 2°C and examined for growth at 18–24 hours.

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Microorganisms	Approx . Inoculum (CFU)	Expected Results
Uninoculated Media	N/A	No Growth
Enterobacter aerogenes — ATCC 13048	10–300	≥ 85% Recovery, dark pink to red colonies, may elicit a green metallic sheen
Escherichia coli — ATCC 25922	10–300	≥ 85% Recovery, red colonies with green metallic sheen
Salmonella enteritidis — ATCC 13076	10–300	≥ 85% Recovery, colorless to pink colonies
Salmonella typhimurium — ATCC 14028	10–300	≥ 85% Recovery, colorless to pink colonies
Staphylcoccus aureus — ATCC 25923	300–10,000	Suppressed to Inhibited

Results: Examine filters for the presence of red colonies. All red colonies that have the characteristic metallic sheen are coliforms. The metallic green-gold sheen can cover all or part of the colony. Report the coliform density in terms of total coliforms/100 mL. Lactose non-fermenting bacteria form clear, colorless colonies.

Storage: Store Ampouled m-Endo Broth, 2 mL at 2–8°C.

Expiration: Refer to expiration date printed on the front of the box container.

Limitations of the Procedure

1. Analyze sample as soon as possible after collection.
2. Samples containing colloidal or suspended particulate material can clog the membrane filter, thereby prevent filtration, or cause spreading of bacterial colonies which could interfere with colony identification.
3. If the inoculum is too heavy, the sheen may be suppressed.
4. Occasionally, noncoliform organisms may produce typical sheen colonies. Coliform organisms may also occasionally produce atypical colonies, including dark red or nucleated colonies without sheen.

NEOGEN Items		
6500	m-Endo Broth, 2 mL	Box of 50
6550	NEOGEN Filter — White	Box of 50

References

1. Fifield, C. W., and C. P. Schaufus. 1958. J. Am. Water Works Assoc. 50:193-196.
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4. U. S. Environmental Protection Agency. 2007. R9 Laboratory SOP1101. Membrane filtration coliform analysis.
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