



Easy Dry™ m-Endo LES

Selective medium for detection of coliform bacteria in water.

DESCRIPTION

Liofilchem Easy Dry™ are absorbent pads impregnated with a sterile, dehydrated culture medium. Each pad is preplated in a Petri dish and is immediately ready to use after pouring sterile distilled or deionized water on it. Easy Dry™ are optimal for the examination of large sample volumes by the membrane filter method.

Easy Dry™ m-Endo LES is a selective medium used for the detection and enumeration of coliforms in water samples and drinking water in accordance with the recommendations of the APHA.

TYPICAL FORMULA	(g/l)
Tryptose	7.5
Peptone	3.7
Triptone	3.7
Yeast Extract	1.2
Lactose	9.4
Sodium Chloride	3.7
Dipotassium Hydrogen Phosphate	3.3
Potassium Dihydrogen Phosphate	1.0
Sodium Sulfite	1.6
Sodium Desoxycholate	0.1
Sodium Laurylsulfate	0.05
Basic Fuchsine	0.8
Final pH 7.2 ± 0.2 at 25°C	

METHOD PRINCIPLE

Tryptose, peptone and triptone provide amino acids, nitrogen, carbon, vitamins and minerals for organisms growth. Yeast extract is a source of vitamins, particularly of B-group. Lactose is the fermentable carbohydrate providing carbon and energy. Sodium chloride maintains the osmotic balance of the medium. Phosphates are the buffering system. Sodium desoxycholate, sodium sulfite and sodium laurylsulfate inhibit the growth of Gram-positive bacteria. Basic fuchsine is the pH indicator.

PREPARATION

1. Cut open a bag and remove the number of Easy Dry™ plates needed.
2. Moisten the pad contained in the Petri dish with 2.2 ml of sterile distilled or deionized water.
3. Wait 5 minutes before using.

TEST PROCEDURE

Filter the sample through a filter membrane (0.45 µm pore diameter). Transfer the membrane onto a plate containing a just rehydrated pad (standard one-step membrane filter technique). Incubate aerobically at 35 ± 0.5°C for 18-24 hours.

Alternatively, use the two-step enrichment method: a membrane through which a water sample has been filtered, is placed on an absorbent pad saturated with Lauryl Sulphate Tryptose Broth (ref. 21453) and incubated at 35 ± 0.5°C for 2 h. The filter is then transferred onto m-Endo Agar LES and incubated for another 21 ± 1 h at 35 ± 0.5°C.

INTERPRETING RESULTS

Typical colonies of coliform microorganisms show a pink to dark-red color with a metallic green sheen. Count all such colonies and report the result as total coliform per volume of water sampled allowing for the dilution factor.

APPEARANCE OF THE MEDIUM

Pinkish pad. Fuchsia once rehydrated.

STORAGE

Store at 10-25°C away from light. Do not use the product beyond its expiry date on the label or if product shows any evidence of contamination or any sign of deterioration.

SHELF LIFE

2 years.

QUALITY CONTROL

Plates are inoculated with the microbial strains indicated in the QC table.

Inoculum for productivity: 50-100 CFU.

Inoculum for selectivity: 10⁴-10⁶ CFU.

Incubation conditions: aerobically at 35 ± 2°C for 20-48 h.

QC Table.

Microorganism		Growth	Colony appearance
<i>Escherichia coli</i>	ATCC® 25922	Good	Red with metallic sheen
<i>Enterobacter cloacae</i>	ATCC® 13047	Good	Red, may have a metallic sheen
<i>Salmonella</i> Typhimurium	ATCC® 14028	Good	Colorless to pink
<i>Staphylococcus aureus</i>	ATCC® 25923	Inhibited	---
<i>Enterococcus faecalis</i>	ATCC® 19433	Inhibited	---

WARNING AND PRECAUTIONS

The product does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous. It is nevertheless recommended to consult the safety data sheet for its correct use. The product is intended for professional use only and must be used by properly trained operators.

DISPOSAL OF WASTE

Disposal of waste must be carried out according to national and local regulations in force.









BIBLIOGRAPHY

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2. Environmental Protection Agency (1992) Manual for the Certification of Laboratories Analyzing Drinking Water , EPA-814B-92-002. Office of Ground Water and Technical Support Division, U.S. Environmental Protection Agency, Cincinnati, OH.
3. APHA (1985). Standards Methods for the Examination of Water and Wastewater, 16th Ed.
4. Bordner, R. and J. Winter (1978) Microbiological Methods for Monitoring the Environment, Water and Wastes , EPA-600/8-78-017. Environmental Monitoring and Support Laboratory, Office of Research and Development, U.S. Environmental Protection Agency, Cincinnati, OH.
5. McCarthy, J.A., J.E. De Laneg, and R.J. Grasso (1961). Water and Sewage Works, 108, 238.
6. American Public Health Association Standard Methods for the Examination of Water and Wastewater , APHA, Washington, D.C.

PRESENTATION

		Contents	Ref.
Easy Dry™ m-Endo LES	60 mm ready-to-use plates	100 plates	87504

TABLE OF SYMBOLS

LOT Batch code	 Keep away from sunlight	 Manufacturer	 Use by	 Fragile, handle with care
REF Catalogue number	 Temperature limitation	 Contains sufficient for <n> tests	 Caution, consult Instruction For Use	 Do not reuse



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