

Easy DryTM m-Faecal Coliform

Selective medium for detection of faecal coliform bacteria.

DESCRIPTION

Liofilchem Easy DryTM 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 DryTM are optimal for the examination of large sample volumes by the membrane filter method.

Easy DryTM m-Faecal Coliform is a selective medium used to differentiate bacteria of faecal origin from other coliforms in water samples according to the recommendations of the APHA.

TYPICAL FORMULA	(g/ l)
Tryptose	10.0
Proteose Peptone	5.0
Yeast Extract	3.0
Sodium Chloride	5.0
Bile Salts	1.5
Lactose	12.5
Methyl Blue (formerly Aniline Blue)	0.1
Final pH 7.4 ± 0.2 at 25°C	

METHOD PRINCIPLE

Tryptose and proteose peptone provide amino acids, nitrogen, carbon, vitamins and minerals for organisms growth. Yeast extract is a source of vitamins, particularly of B-group. Sodium chloride maintains the osmotic balance of the medium. Bile salts and methyl blue are selective agents effective against the accompanying Gram-positive flora. Methyl blue acts also as growth indicator. Lactose is the fermentable carbohydrate.

PREPARATION

- 1. Cut open a bag and remove the number of Easy DryTM 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 duplicate water samples through separate membrane filters (0.45 μ m pore diameter). Transfer the membranes onto a plate containing a just rehydrated pad. Incubate a set of plates at 35 \pm 2°C and the other one at 44.5 \pm 0.5°C for 24 hours under aerobic atmosphere.

INTERPRETING RESULTS

Colonies produced by fecal coliforms form blue colonies. Coliforms from other sources should be inhibited; however, if present they may appear, as other organisms, as gray to cream-colored colonies.

APPEARANCE OF THE MEDIUM

Maroon pad. Brownish 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 44.5 ± 0.5 °C for 24 ± 2 h.

QC Table.

Microorganism		Specification	
Escherichia coli	ATCC® 25922	Good growth, blue to dark blue colonies	
Salmonella Typhimurium	ATCC® 14028	Good growth, pink to red colonies	
Enterobacter aerogenes	ATCC® 13048	Good growth, gray to gray-blue colonies	
Enterococcus faecalis	ATCC® 19433	Inhibition	

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

- 1. E.E. Geldreich, H.F. Clark, C.B. Huff, L.C. Best, J. Am. (1965) Water Works Assoc., 57, 208.
- 2. A.E. Greenberg, R.R. Trussel, L.S. Clesceri (Eds.), Standard Methods for the Examination of Water and Wastewater, 16th ed., APHA Washington D.C.

PRESENTATION		Contents	Ref.
Easy Dry TM m-Faecal Coliform	60 mm ready-to-use plates	100 plates	87506

TABLE OF SYMBOLS LOT Batch code Keep away from sunlight Manufacturer Use by Fragile, handle with care Temperature limitation Temperature constant for constant instruction For Use Do not reuse