BBL™ and Difco™ Chromogenic Media

Your Assurance in Meeting Regulatory Requirements

BD

Three New Chromogenic Water Testing Media Offer Quick, Sensitive and Quantifiable Results

- MI Agar
- Modified mTEC Agar
- mEI Agar

Low false-positive and false-negative rates

Final results in 24 hours or less

Single membrane technique– no membrane filter transfers required

Why Use the New BD Water Testing Media for Enumeration by Membrane Filtration?

Membrane filtration offers precise, quantifiable results, whereas:

- Most probable number methods are time consuming, costly and provide only a statistical estimate
- Presence-absence testing provides only the presence of the organism, but cannot quantify the extent of contamination

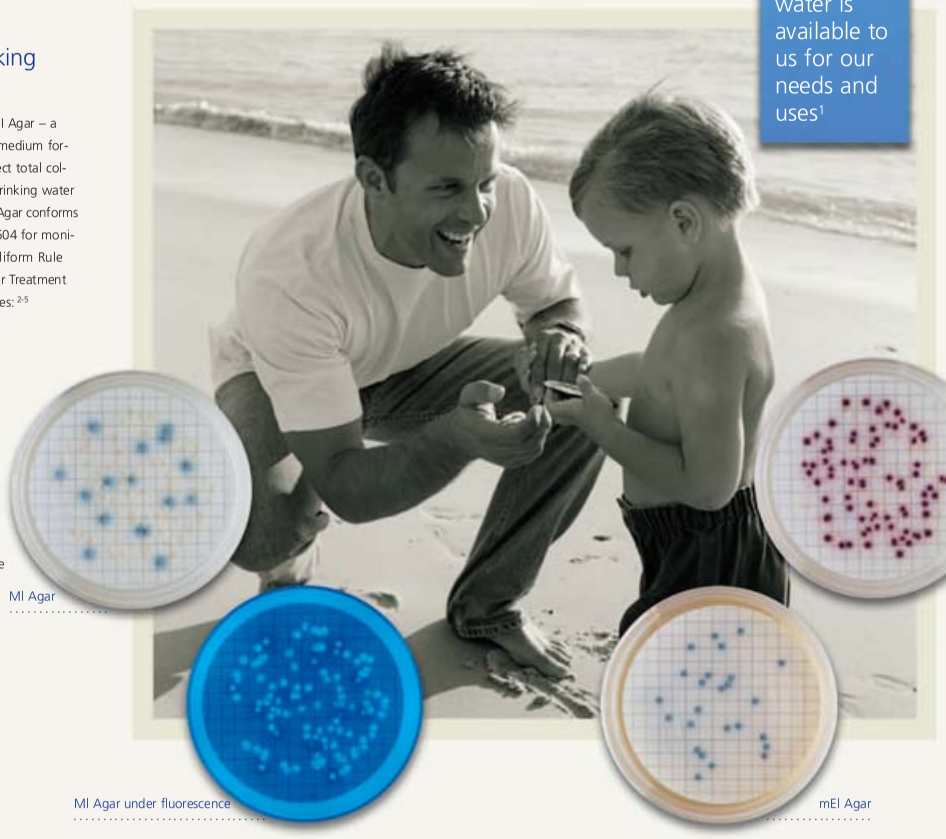
Membrane filtration can be used to detect the degree of water quality deterioration in the drinking distribution system, and to monitor the progress in remediation.

BD MI Agar for Testing Drinking Water and Source Water

Get clear-cut results with BD MI Agar – a new chromogenic-fluorogenic medium formulated to simultaneously detect total coliforms and *Escherichia coli* in drinking water by membrane filtration. BD MI Agar conforms to USEPA Approved Method 1604 for monitoring drinking water (DW) under the Total Coliform Rule (TCR) and source water under the Surface Water Treatment Rule (SWTR). BD MI Agar offers many advantages: [2-5]

- Simultaneous detection and enumeration of Total Coliforms and *Escherichia coli* from water samples
- Sensitive, selective and specific with low false-positive and false-negative rates
- Confirmatory for *E. coli* and coliform bacteria. No further verification is required.
- Chromogenic and fluorogenic reaction – *E. coli* under ambient light has a bluish-gray (Crayola® Cadet Blue) and blue-green fluorescence under long-wave UV light, while coliforms are cream-colored under ambient light with blue-white fluorescence under long-wave UV light
- Only one medium, one incubation time and one temperature required
- Eliminates need for repeat samples, serial analyses and MF transfers – simplifies compliance with Final Total Coliform Rule
- Can be used for ambient water, potable water, treatment plant effluents, beverage and pharmaceuticals

Only 3% of the world's water is available to us for our needs and uses[1]



MI Agar

MI Agar under fluorescence

mEI Agar

Modified mTEC Agar

Modified mTEC Agar for Testing Fresh Water

In 1986, the U.S. Environmental Protection Agency (USEPA) recommended that *E. coli* be used as a bacterial water quality indicator to monitor recreational waters.[6] Modified mTEC Agar is a selective culture medium recommended by the USEPA[7] for the chromogenic detection and enumeration of thermotolerant *E. coli* (TEC) in water by the membrane filtration technique.

- Conforms with USEPA Approved Method 1603
- Confirmatory for *E. coli* in 24 hours with colonies having a red or magenta color

mEI Agar for Testing Fresh Water and Salt Water

In fresh and marine water, the presence of enterococci is an indication of fecal pollution and the possible presence of enteric pathogens. Test for enterococci with confidence using mEI Agar – a selective culture medium recommended by USEPA[8] for the chromogenic detection and enumeration of enterococci in water by the membrane filtration technique.

- Conforms to USEPA Approved Method 1600
- Confirmatory results for enterococci in less than 24 hours with colonies having a blue halo

DESCRIPTION	UNIT MEASURE	CATALOG NUMBER
Difco™ MI Agar Base for the Simultaneous Chromogenic-fluorogenic Detection and Enumeration of Total Coliforms and *E. coli* in Drinking Water by the Membrane Filter Technique. Conforms with USEPA Approved Method 1604[5]		**Dehydrated Culture Media**
	100 g	214882
	500 g	214883
Difco™ Modified mTEC Agar Base for the Chromogenic Detection and Enumeration of *E. coli* in Water by the Membrane Filter Technique. Conforms with USEPA Approved Method 1603[7]		**Dehydrated Culture Media**
	100 g	214884
	500 g	214880
Difco™ mEI Agar Base for the Chromogenic Detection and Enumeration of Enterococci in Water by the Membrane Filter Technique. Conforms with USEPA Approved Method 1600[8]		**Dehydrated Culture Media**
	100 g	214885
	500 g	214881
BBL™ MI Agar for the Simultaneous Chromogenic-fluorogenic Detection and Enumeration of Total Coliforms and *E. coli* in Drinking Water by the Membrane Filter Technique. Conforms with USEPA Approved Method 1604[5]		**Prepared Plated Media (15 x 60mm)**
	Pkg of 20 Plates	214986
	Ctn of 100 Plates	214985
BBL™ Modified mTEC Agar for the Chromogenic Detection and Enumeration of *E. coli* in Water by the Membrane Filter Technique. Conforms with USEPA Approved Method 1603[7]		**Prepared Plated Media (15 x 60mm)**
	Pkg of 20 Plates	215044
	Ctn of 100 Plates	215046
BBL™ mEI Agar for the Chromogenic Detection and Enumeration of Enterococci in Water by the Membrane Filter Technique. Conforms with USEPA Approved Method 1600[8]		**Prepared Plated Media (15 x 60mm)**
	Pkg of 20 Plates	215045
	Ctn of 100 Plates	215047

References

1 General Water Facts, Water for Life. http://www.water.org.my/waterfacts.html August 2002.

2 Brenner, K.P., C.C. Rankin, Y.R. Roybal, G.N. Stelma, Jr., P.V. Scarpino, and A.P. Dufour. 1993. New medium for the simultaneous detection of total coliforms and *Escherichia coli* in water. Applied and Environmental Microbiology *59*: 3534-3544.

3 Brenner, K.P., C.C. Rankin, and M. Sivaganesan. 1996. Interlaboratory evaluation of MI agar and the U.S. Environmental Protection Agency-approved membrane filter method for the recovery of total coliforms and *Escherichia coli* from drinking water. Journal of Microbiological Methods *27*: 111-119.

4 Brenner, K.P., C.C. Rankin, M. Sivaganesan, and P.V. Scarpino. 1996. Comparison of the recoveries of *Escherichia coli* and total coliforms from drinking water by the MI agar method and the U.S. Environmental Protection Agency-approved membrane filter method. Applied Environmental Microbiology *62* (1): 203-208.

5 U.S. Environmental Protection Agency. 2002. Method 1604: Total coliforms and *Escherichia coli* in water by membrane filtration using a simultaneous detection technique (MI medium), September 2002, Publication EPA-821-R-02-024, USEPA Office of Water, Office of Science and Technology, Washington, DC.

6 U.S. Environmental Protection Agency (USEPA). 1986. Bacteriological ambient water quality criteria: availability. Federal Register *51*(45): 8012-8016.

7 U.S. Environmental Protection Agency. 2002. Method 1603: *Escherichia coli* (*E. coli*) in water by membrane filtration using modified membrane-thermotolerant *Escherichia coli* agar (modified mTEC), September 2002, Publication EPA-821-R-02-023, USEPA Office of Water, Office of Science and Technology, Washington, DC.

8 U.S. Environmental Protection Agency. 2002. Method 1600: Enterococci in water by membrane filtration using membrane-enterococcus indoxyl-ß-D-glucoside agar (mEI), Publication EPA-821-R-02-022. USEPA Office of Water, Office of Science and Technology, Washington, DC.

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