



Dehydrated Culture Media
Instructions for Use

LACTOSE BROTH (M173) Dehydrated Culture Media

USE: Lactose Broth is used for the detection and/or verification of the presence of coliform organisms in water, foods, and dairy products.

DESCRIPTION: Lactose Broth was formulated in accordance with recommendations of the American Public Health Association (APHA) and the American water works Association for testing dairy products and water for the presence of coliform organisms.^{1,2} This medium was, but no longer is, listed as an alternative to Lauryl Sulfate Broth in the presumptive portion of the Standard Total Coliform Multiple-Tube (MPN) Test for water analysis provided that it had been demonstrated not to increase the frequency of false-positives nor mask coliforms.³ It is one of the recommended media in the *Compendium of Methods for the Microbiological Examination of Foods* for pre-enrichment when *Salmonella* organisms are suspected in foods.⁴ It is included in the USP for use in performance of Microbial Limit Tests for *Salmonella* species and *Escherichia coli*.⁵

FORMULA:

Beef Extract.....	3.0 g/L
Pancreatic Digest of Gelatin	5.0 g/L
Lactose	5.0 g/L
Total	13.0 g/L

Note: Medium may be adjusted and/or supplemented as required to meet performance criteria.

Final pH: 6.9 ± 0.2 at 25°C

PHYSICAL APPEARANCE:

Dehydrated – Light beige to light tan, free-flowing, homogeneous.

Prepared – Light amber, clear.

PROCEDURE: Mix 13 grams of the medium in one liter of purified water. Autoclave at 121°C for 15 minutes.

EXPECTED RESULTS: Cultural response after 18-24 hours at 35°C.

Microorganism	CFU	Growth	Acid	Gas
<i>K. aerogenes</i> ATCC™ 13048	30-300	+	+	+
<i>E. coli</i> ATCC™ 25922	30-300	+	+	+
<i>E. faecalis</i> ATCC™ 29212	30-300	+	+	-
<i>S. enterica</i> ser. Typhimurium ATCC™ 14028	30-300	+	-	-

STORAGE: Store the product at 2-30°C protected from moisture and light for up to the expiration date.

LIMITATIONS: For laboratory use only. The dehydrated medium should be discarded if there are any changes in the color or if it is no longer free flowing.

SIZES AVAILABLE: M1731 (13), M1732 (500g), M1733 (2Kg), M1734 (10Kg)

PACKAGING: Additional configurations are available upon request.

REFERENCES:

1. American Public Health Association. 1946. Standard methods for the examination of water and sewage, 9th ed. APHA, New York, NY.
2. American Public Health Association. 1948. Standard methods for the examination of dairy products, 9th ed. APHA, New York, NY.
3. Rand, Greenberg, and Taras (ed.). 1976. Standard methods for the examination of water and wastewater, 14th ed. American Public Health Association, Washington D.C.
4. Downes and Ito (ed.). 2001. Compendium of methods for the microbiological examination of foods, 4th ed. American Public Health Association, Washington D.C.
5. United States Pharmacopeial Convention, Inc. 2001. The United States pharmacopeia 25/The national formulary 20-2002. United States Pharmacopeial Convention, Inc., Rockville, MD.

Millennium LifeSciences, Inc.
CultureMediaConcepts®
970 E. Orangethorpe Ave, Unit A
Anaheim, CA 92801
TEL: (714) 773-1726
FAX: (714) 773-1793