



## Technical Information

### LACTOSE BROTH (G173) SampleReady® GAMMA IRRADIATED SOLUBLE POUCH

**USE:** Lactose Broth is used for the detection and/or verification of the presence of *Salmonella* and 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.<sup>1,2</sup> 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.<sup>3</sup> 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.<sup>4</sup> It is included in the USP for use in the performance of Microbial Limit Tests for *Salmonella* species and *Escherichia coli*.<sup>5</sup>

**FORMULA\*** per Liter

Beef Extract.....	3.0g
Casein Peptone.....	5.0g
Lactose.....	5.0g
<b>Total.....</b>	<b>13g</b>

\*Medium may be adjusted and/or supplemented as required to meet performance criteria.

**Final pH:** 6.9 ± 0.2 at 25°C

**PREPARATION:** Carefully open the Mylar bag and aseptically transfer one soluble pouch to a container of sterile water and mix. Use 1L of sterile water per 13g with repeated stirring or agitation to dissolve completely. Once dissolved, the Lactose Broth is ready for testing applications. Testing should include measuring pH and testing performance with Quality Control organisms.

**STORAGE:** Store the sealed Mylar bag in a dry environment at 2 to 30°C.

**QUALITY CONTROL SPECIFICATIONS:**

- Packaging** – The Mylar Bag is hermetically sealed.
- Dehydrated Appearance** – The soluble pouch is dry, and the inclusive powder is light beige to light tan, homogeneous and free-flowing.
- Prepared Appearance** – Light amber, clear to slightly hazy.

**Expected Cultural Response** – Good growth after 18-48 hours at 35°C:

Microorganism	CFU	Growth	Acid	Gas
<i>Klebsiella aerogenes</i> ATCC™ 13048	10 – 100	+	+	+
<i>Escherichia coli</i> ATCC™ 25922	10 – 100	+	+	+
<i>Enterococcus faecalis</i> ATCC™ 19433	10 – 100	+	+	-
<i>Salmonella</i> ser. Typhimurium ATCC™ 14028	10 – 100	+	-	-

**LIMITATIONS AND PRECAUTIONS:** Soluble pouch will dissolve in warm water (37°C to 42°C) within an hour based on agitation. A commercial agitator is recommended to dissolve the soluble pouch within minutes.

Once opened, use all pouches within the Mylar bag as soon as possible. Prepared media should be used within 3 hours for best results.

The soluble pouches should be discarded if there has been a change from the original color, or the inclusive powder is not free flowing.

FOR LABORATORY USE ONLY.

**SIZES AVAILABLE:** 14.6g (1.125 L), 44g (3.4 L)

**PACKAGING:** See individual product Technical Information sheets for specific packaging formats.

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, N.Y.
2. American Public Health Association. 1948. Standard methods for the examination of dairy products, 9th ed. APHA, New York, N.Y.
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.