



Dehydrated Culture Media Technical Information

UVM, MODIFIED BLEB G320 SAMPLEREADY™ GAMMA IRRADIATED SOLUBLE MEDIA POUCH

USE: Modified UVM Listeria Enrichment Broth is used for rapidly isolating *Listeria monocytogenes*.

DESCRIPTION: First described in 1926 by Murray, Webb and Swann,¹ *Listeria monocytogenes* is a widespread problem in public health and the food industries. This organism can cause human illness and death, particularly in immunocompromised individuals and pregnant women.² The first reported foodborne outbreak of listeriosis was in 1985,³ and since then, microbiological and epidemiological evidence from both sporadic and epidemic cases of listeriosis has shown that the principal route of transmission is via the consumption of foodstuffs contaminated with *Listeria monocytogenes*.⁴ Implicated vehicles of transmission include turkey frankfurters,⁵ coleslaw, pasteurized milk, Mexican-style cheese, paté and pickled pork tongue. The organism has been isolated from commercial dairy and other food processing plants and is ubiquitous in nature, being present in a wide range of unprocessed foods and in soil, sewage, silage and river water.⁶ *Listeria* species grow over a pH range of 4.4-9.6 and survive in food products with pH levels outside these parameters.⁷ *Listeria* spp. are microaerophilic, gram-positive, asporogenous, non-encapsulated, non-branching, regular, short, motile rods. Motility is most pronounced at 20°C.

FORMULA* per Liter

Pancreatic Digest of Casein.....	5.0g
Proteose Peptone.....	5.0g
Beef Extract.....	5.0g
Yeast Extract.....	5.0g
Sodium Chloride.....	20.0g
Disodium Phosphate.....	9.6g
Monopotassium Phosphate.....	1.35g
Esculin.....	1.0g
Nalidixic Acid.....	20mg
Acriflavine HCl.....	12mg
Total.....	52g

*Adjusted and/or supplemented as required to meet performance criteria.

Final pH: 7.2 ± 0.2 at 25°C

PREPARATION: Soluble Media Pouches are hermetically sealed in a Mylar Bag. Aseptically open the Mylar Bag and carefully remove the Soluble Pouch using sterile forceps or tweezers. The Soluble Pouches are single use. Once removed from the Mylar Bag the Pouches should be used immediately. Mix the Pouches in warm Purified or Sterile water with repeated stirring to dissolve completely. Use one liter of Purified or Sterile water per 52g of dry media in the Soluble Pouch. When completely dissolved in Purified or Sterile water, the UVM Modified Broth should be free of contamination and ready for testing applications. Testing should include measuring for pH and testing performance with Quality Control Organisms.

QUALITY CONTROL SPECIFICATIONS:

1. The Mylar Bag is hermetically sealed.
2. The Dissolvable Pouch is dry and the inclusive powder is beige and free flowing.
3. Visually the prepared medium is light amber, opalescent, with a slight to moderate precipitate.
4. Expected cultural response after 18-48 hours at 35°C.

Microorganism	CFU	Growth	Blackening
<i>E. coli</i> ATCC™ 25922	30 – 300	Inhibition	-
<i>L. monocytogenes</i> ATCC™ 19114	30 – 300	+	+
<i>Enterococcus faecalis</i> ATCC™ 19433	30 – 300	+	-

STORAGE: Store the sealed Mylar Bag containing the Soluble Media Pouches in a cool dry environment at 2 to 30°C. Once the Mylar bag is opened, use all pouches within the bag as soon as possible. The unused pouches in the Mylar Bag can be stored for the duration of the shelf life, if the Mylar Bag is properly sealed and stored. The Soluble Media Pouches should be discarded if there has been a change from the original light beige color, or inclusive powder is not free flowing.

LIMITATIONS AND PRECAUTIONS: FOR LABORATORY USE ONLY

SIZES AVAILABLE: 5.2g (100ml), 11.7g (225ml), 20.8g (400ml), 26g (500ml), 52g (1 Liter)

REFERENCES:

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