



Technical Information

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UVM, MODIFIED LISTERIA ENRICHMENT BROTH (G320) SampleReady® GAMMA IRRADIATED SOLUBLE 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

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

Final pH: 7.2 ± 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 52g of dry media with repeated stirring or agitation to dissolve completely. Once dissolved, the UVM Modified BLEB 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 beige, homogeneous and free-flowing.

TI-G320
DCO19015 Eff 030419

Prepared Appearance – Light to medium amber, slightly opalescent with fine precipitate.

Expected Cultural Response – Results after 18-48 hours at 35°C:

Microorganism	CFU	Growth
<i>E. coli</i> ATCC™ 25922	10 ³ – 2x10 ³	Inhibition
<i>E. faecalis</i> ATCC™ 29212	10 ³ – 2x10 ³	+*
<i>L. monocytogenes</i> ATCC™ 19114	10 ² - 10 ³	+

**E. faecalis* is suppressed at 18-24 hours, and grows at 40-48 hours.

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

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

Additional configurations are available upon request.

REFERENCES:

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