

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:

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

*9.6g Disodium Phosphate Anhydrous is equivalent in Molecular weight to 12.0g Disodium Phosphate Dihydrate.

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

Final pH: 7.2 ± 0.2 at 25°C

PHYSICAL APPEARANCE:

Dehydrated Appearance – The powder is beige, homogenous, and free flowing encapsulated in a clear soluble film pouch.

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

PROCEDURE: Carefully open the Mylar bag and aseptically transfer one soluble pouch to a container with sterile water and mix. Use 1L of sterile water per 52g dry media. Dissolve

completely with repeated stirring or agitation. Once dissolved, the medium is ready for testing applications. Consult reference methods for complete procedures.

EXPECTED RESULTS: Cultural response 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.

STORAGE: Store the sealed Mylar bag at 2-30°C in a dry environment for up to the expiration date.

LIMITATIONS: Once opened, use all pouches within the Mylar bag as soon as possible. Use prepared media within 3 hours for best results. The pouches should be discarded if there has been a change from the original color, or the encapsulated 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), 58.5g (1.125 Liters)

PACKAGING: See individual product information for specific packaging formats. Additional configurations are available upon request.

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