TSB, Modified w/20mg Novobiocin & Acid Digest Casein
SKU: 700003360, 700003361, 700003362, 700003363
NCM0137

Intended Use

TSB, Modified with 20mg Novobiocin & Acid Digest of Casein is used for the selective enrichment of enterohemorrhagic *E. coli* in foods in a laboratory setting. TSB Modified w/20 mg Novobiocin & Acid Digest of Casein is not intended for use in the diagnosis of disease or other conditions in humans.

Description

The first major outbreak of *E. coli* O157:H7 was in 1982, and traced to contaminated hamburgers. Other known sources of infection include sprouts, lettuce, salami, unpasteurized milk, juice and/or swimming in or drinking contaminated water. TSB, Modified w/20 mg Novobiocin & Acid Digest of Casein is used to enrich food samples suspected of having low levels of EHEC during pathogen testing. This formulation conforms to the USDA/FSIS Microbiology Laboratory Guidebook.

Typical Formulation

Enzymatic Digest of Casein	17.0 g/L
Acid Digest of Casein	10.0 g/L
Sodium Chloride	5.0 g/L
Dipotassium Phosphate	4.0 g/L
Enzymatic Digest of Soybean Meal	3.0 g/L
Dextrose	2.5 g/L
Bile Salts No. 3	1.5 g/L
Novobiocin	0.020 g/L

Final pH: 7.3 ± 0.2 at 25°C
Formula is adjusted and/or supplemented as required to meet performance specifications.

Precaution

Refer to SDS

Preparation

1. Dissolve 43.02 g of the medium in one liter of purified water.
2. Mix thoroughly.
3. Autoclave at 121°C for 15 minutes.

Quality Control Specifications

Dehydrated Appearance: Powder is homogeneous, free flowing, and light to medium beige.

Prepared Appearance: Prepared medium is brilliant to clear, none to light precipitate, and light to medium amber.

Expected Cultural Response: TSB, Modified w/20mg Novobiocin & Acid Digest of Casein was inoculated with the test organisms listed below. These organisms were incubated at the appropriate atmosphere and temperature and examined for growth after 18 – 22 hours.

620 Lesher Place • Lansing, MI 48912
800-234-5333 (USA/Canada) • 517-372-9200
foodsafety@neogen.com • foodsafety.neogen.com

Microorganism	Approx. Inoculum (CFU)	Recovery
Escherichia coli ATCC® 25922	10 - 300	Growth
Escherichia coli ATCC® 11775	10 - 300	Growth
Escherichia coli O157:H7 ATCC® 35150	10 - 300	Growth
Escherichia coli O157:H7 ATCC® 43888	10 - 300	Growth
Escherichia coli O157:H7 ATCC® 43889	10 - 300	Growth
Escherichia coli O157:H7 ATCC® 43895	10 - 300	Growth
Pseudomonas aeruginosa ATCC® 27853	10 - 300	Markedly suppressed to inhibited

The organisms listed are the minimum that should be used for quality control testing.

Test Procedure
Refer to appropriate references for specific procedures on the recovery of pathogenic *E. coli*.

Results
Refer to appropriate references for test results on the detection and enumeration of pathogenic *E. coli*.

Expiration
Refer to expiration date stamped on the container. The dehydrated medium should be discarded if not free flowing, or if appearance has changed from the original color. Expiry applies to medium in its intact container when stored as directed.

Limitations of the Procedure
Due to varying nutritional requirements, some strains may be encountered that grow poorly or fail to grow on this medium.

Storage
Store dehydrated culture media at 2-30°C away from direct sunlight. Once opened and recapped, place container in a low humidity environment at the same storage temperature. Protect from moisture and light by keeping container tightly closed.

References
1. USDA. 2008. Food Safety and Inspection Service, Detection, Isolation and Identification of Escherichia coli O157:H7 from meat products. MLG 5.04, USDA/FSIS Microbiology Laboratory Guidebook, Washington D.C.
2. U.S. FDA. Center for Food Safety & Applied Nutrition. 2001. Food pathogenic microorganisms and natural toxins handbook. *Escherichia coli* O157:H7. College Park, MD.
3. http://www.cdc.gov/ncidod/abmd/diseaseinfo/escherichiacoli_g.htm.
4. www.fda.gov/Food/ScienceResearch/LaboratoryMethods/BacteriologicalAnalyticalmanualBAM/ default.htm.