

76704 mTSB Broth with Novobiocin (Modified Tryptic Soy Broth with Novobiocin)

For the selective enrichment of enterohemorrhagic *E. coli* (EHEC) in foods, specially meat and poultry products. The medium meets the requirements of the DIN Norm 10167 for the detection of *E. coli* serotype O157:H7 in foods. It is also recommended by the FDA-BAM as a method for the isolation of enterohemorrhagic *E. coli* (EHEC).

Composition:

Ingredients	Grams/Litre
Peptone from caseine	17.0
Peptone from soymeal	3.0
Sodium chloride	5.0
Bile salts No. 3	1.5
D(+)-glucose	2.5
Di-potassium hydrogen phosphate	4.0
Novobiocin	0.02
Final pH 7.3 +/- 0.2 at 25°C	

Store prepared media below 8°C, protected from direct light (6 month stable). Store dehydrated powder, in a dry place, in tightly-sealed containers at 2-25°C.

Appearance: Faintly brown coloured, homogeneous, free flowing powder.
Color and Clarity: Light yellow coloured, clear solution.

Directions:

Suspend 33 g in 1 litre of distilled water, autoclave at 121°C for 15 minutes.

Inoculation: usually 25 g sample to 225 ml of broth.

Incubation: 18 to 24 h at 37°C or 41.5°C depends on the standard protocol used.

Spread out 0.1 ml broth or dilution on a selective Agar e.g.:

E. coli O157:H7 MUG Agar (Cat. No. 44782)
EC O157:H7 ChromoSelect Agar, Modified (Cat. No. 92587)
EC O157:H7 ChromoSelect Selective Agar, Base (Cat. No. 72557)
Enrichment ChromoSelect Broth Base for EC O157:H7 (Cat. No. 80330)
MacConkey-Sorbitol ChromoSelect Agar (Cat. No. 83339)
MacConkey-Sorbitol Agar (Cat. No. 88902)

Principle and Interpretation:

The peptone provides amino acids and other complex nitrogenous substances. Glucose is the fermentable carbohydrate. Sodium chloride is for osmotic balance. Bile salts largely inhibit the growth of gram-positive accompanying bacterial flora. Di-potassium hydrogen phosphate is the buffering agent to stabilize the pH. Novobiocin makes the media more selective for *E. coli* serotype O157:H7

Cultural characteristics after 18 - 24 hours at 37°C.

Organisms (ATCC)	Growth
<i>E. coli</i> O157:H7 (35150)	+++
<i>E. coli</i> (11775)	+
<i>Pseudomonas aeruginosa</i> (27853)	+



References:

1. DIN Deutsches Institut für Normung e.V., Nachweis von *Escherichia coli* 0157 in Lebensmitteln, DIN 10167.
2. FDA Bacteriological Analytical Manual, 8th Edition/1995, Chapter 4. *Escherichia coli* and the Coliform Bacteria, page 4.20: Isolation Methods for Enterohemorrhagic E. coli (EHEC).
3. S.D. Weagant, J.L. Bryant, K.G. Jinneman, An improved rapid technique for isolation of *Escherichia coli* 0157:H7 from foods, J. Food Prot., 58; 7-12 (1995)

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

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