

mTSB Broth with Novobiocin

mTryptic-Soy-Broth with Novobiocin

For the selective enrichment of enterohemorrhagic *E. coli* (EHEC) in foods.

The culture medium complies with the requirements of the ISO Standard 16654 for the detection of *Escherichia coli* (*E. coli*) serotype O157:H7 in foods as well as with the methods of FDA-BAM for the isolation of enterohemorrhagic *E. coli* (EHEC).

Mode of Action

The nutrient substrates contained in mTSB broth provide favourable growth conditions. The mixture of bile salts No. 3 and Novobiocin suppresses the growth of the Gram-positive microbial flora.

Typical Composition (g/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.

Preparation

Suspend 33 g in 1 litre of demin. water; autoclave (15 min at 121 °C).

pH: 7.3 ± 0.2 at 25 °C.

The prepared broth is clear and yellowish. The broth is stable for up to 6 month when stored at +2 - +8 °C.

Experimental Procedure and Evaluation

Inoculate mTSB Broth with the sample material (usually add 25g test portion of the sample to 225ml of broth).

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

Afterwards about 0.1 ml of the broth is streaked on the dry surface of a *E. coli* O157:H7 Selective Agar, e.g. Fluorocult® *E. coli* O157:H7 Agar, SMAC Agar or CT-SMAC Agar in a way, that single colonies can be well isolated.

Literature

DIN Deutsches Institut für Normung e.V.: Nachweis von *Escherichia coli* O157 in Lebensmitteln. – **DIN 10167**.

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).

WEAGANT, S.D., BRYANT, J.L., a. JINNEMAN, K.G.: An improved rapid technique for isolation of *Escherichia coli* O157:H7 from foods. – **J. Food Prot.**, **58**; 7-12 (1995).

Ordering Information

Product	Merck Cat. No.	Pack size
mTSB Broth with Novobiocin	1.09205.0500	500 g
CT-Supplement	1.09202.0001	1 x 16 vials
Fluorocult® <i>E. coli</i> O157:H7 Agar	1.04036.0100	100 g
Fluorocult® <i>E. coli</i> O157:H7 Agar	1.04036.0500	500 g
Sorbitol-MacConkey Agar	1.09207.0500	500 g
Singlepath® <i>E. coli</i> O157	1.04141.0001	25 tests

Quality control

Test strains	Growth	Singlepath® <i>E. coli</i> O157
<i>E. coli</i> O157:H7 ATCC 35150	good	+
<i>E. coli</i> ATCC 11775	fair	-
<i>Pseudomonas aeruginosa</i> ATCC 27853	fair	-