

Technical Data Sheet

mTSB broth Selective Supplement (Novobiocin)

Ordering number: 1.20593.0010

mTSB broth Selective Supplement contains 8 mg Novobiocin sodium salt in lyophilized form.

Mode of Action

It suppresses the growth of accompanying flora of gram-positive bacteria during culturing *Escherichia coli* O157:H7.

Typical Composition

	mg per vial	Final concentration per liter
Novobiocin sodium salt	8,0	8 mg

Preparation

Dissolve 43.0 g GranuCult® mTSB (modified Tryptic Soy Broth) acc. USDA-FSIS (article number 140011) in 1 liter of purified water. Dispense into suitable vessels and autoclave (15 minutes at 121°C).

For mTSB with Novobiocin, add to 1 litre of autoclaved mTSB the content of 1 vial mTSB selective supplement (article number 120593), dissolved in 1 ml of sterile purified water. Add to the broth after it has cooled below 50°C. The supplement is homogeneously distributed in the broth by carefully swirling.

For mTSB with novobiocin acc. USDA-FSIS (mTSB+n), final concentration of novobiocin sodium salt is 8 mg per liter.



Experimental Procedure and Evaluation

Depend on the purpose for which the medium is used.

Following the procedure given by USDA-FSIS for outbreak-related samples of fermented sausage or cooked meat products for detection of *Escherichia coli* O157:H7, place each 25 ± 1 g sample or sub-sample in a sterile strainer bag and add 225 ± 4,5 ml of mTSB+n. Pummel, blend or hand massage until clumps are dispersed. Incubate all bags (static) with their contents for 15 h to 22 h at 42 ± 1°C. After incubation is complete, follow the procedure as given by USDA-FSIS.

Storage

Usable up to the expiry date when stored dry and tightly closed at +2 °C to +8 °C.

Quality Control

mTSB broth Selective Supplement (Novobiocin) is tested in GranuCult® mTSB (modified Tryptic Soy Broth) acc. USDA-FSIS (article number 140011) in accordance with the current version of EN ISO 11133.

Function	Control strains	Incubation	Method of control	Criteria and expected results
Productivity	<i>Escherichia coli</i> Serogroup O157:H7 ATCC® 700728 [WDCM 00014] + <i>Staphylococcus aureus</i> ATCC® 25923 [WDCM 00034]	15-21 hrs at 41-43 °C aerobic	Qualitative	> 10 transparent small colonies with a pale yellowish- brown appearance on SMAC agar*
Selectivity	<i>Staphylococcus aureus</i> ATCC® 25923 [WDCM 00034]	15-21 hrs at 41-43 °C aerobic	Qualitative	Total inhibition on TSA**

* SMAC Agar: Sorbitol MacConkey Agar

** TSA: Tryptic Soy Agar

Please refer to the actual batch related Certificate of Analysis.

Literature

ISO International Standardisation Organisation. Microbiology of food, animal feed and water - Preparation, production, storage and performance testing of culture media. EN ISO 11133:2014+Amd1:2018.

USDA-FSIS United States Department of Agriculture – Food Safety and Inspection Service. Laboratory Guidebook Chapter MLG 5.09 (2015): Detection, Isolation and Identification of *Escherichia coli* O157:H7 from Meat Products and Carcass and Environmental Sponges. Washington D.C., USA.

Ordering Information

Product	Cat. No.	Pack size
mTSB broth Selective Supplement (8 mg Novobiocin)	1.20593.0010	10 x 1 vial
GranuCult® mTSB (modified Tryptic Soy Broth) acc. USDA-FSIS	140011.0500	500 g

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