CEFIXIME TELLURITE O157 SUPPLEMENT

Freeze-dried selective supplement

1 - INTENDED USE

Selective supplement for culture media intended for the isolation of *Escherichia coli* O157 H7.

2 - COMPOSITION - VIAL CONTENTS FOR 500 mL OF MEDIUM

Cefixime	0.025 mg
Potassium tellurite	1.250 mg

3 - PRINCIPLE OF THE METHOD AND EXPLANATION OF THE PROCEDURE

Cefixime Tellurite O157 Supplement is a freeze-dried mixture of antimicrobial compounds prepared according to the observations of Chapman[1] and Zadik[2]. The addition of cefixime and potassium tellurite to MacConkey sorbitol media completely or partially inhibits the growth of 67% of *E. coli* non-O157 and almost completely the growth of others sorbitol non-fermenting Gram-negative bacteria.[2]
Cefixime is a third-generation cephalosporin with inhibitory properties against *Proteus* spp. while potassium tellurite aids in the separation of serogroup O157 from other *E. coli* serogroups and inhibits *Providencia* spp. and *Aeromonas* spp.

4- DIRECTIONS

Aseptically reconstitute the contents of one vial of Cefixime Tellurite O157 Supplement with 5 mL of sterile purified water under aseptic conditions and mix gently to dissolve.
Aseptically add the vial contents to 500 mL of the following media autoclaved and cooled to 45-50°C: MacConkey Sorbitol Agar (REF 401669S) or MacConkey Sorbitol MUG Agar (REF 401669) or MacConkey Sorbitol BCIG Agar (REF 401668) or Chromogenic E. coli O157 Agar (REF 405581)

5 - PHYSICAL CHARACTERISTICS

Freeze-dried supplement appearance	short, dense, white pastille
Reconstituted supplement appearance	colourless, clear

6 - MATERIALS PROVIDED - PACKAGING

Product	Type	REF	Pack
Cefixime Tellurite O157 Supplement	Freeze-dried supplement	4240030	10 vials, each for 500 mL of medium

7 - MATERIALS REQUIRED BUT NOT PROVIDED

Autoclave, water-bath, sterile loops and swabs, incubator and laboratory equipment as required, Petri dishes, Erlenmeyer flasks, ancillary culture media and reagents.

8 - SPECIMENS

Culture media with Cefixime Tellurite O157 Supplement, are intended for the bacteriological processing of foods; good laboratory practices for collection, transport and storage of the samples should be applied. Refer to the applicable international standards.[3,4]

9 - TEST PROCEDURE, READING AND INTERPRETATION

For inoculation, incubation and reading procedures, please refer to the Instructions for use of culture media mentioned above.

10 - USER QUALITY CONTROL

All manufactured lots of the product are released for sale after the Quality Control has been performed to check the compliance with the specifications. However, the end user can perform its own Quality Control testing in accordance with the local applicable regulations, in compliance with accreditation requirements and the experience of the Laboratory. Refer to the Instructions for use of culture media mentioned above for the suggested quality control strains.

11 - LIMITATIONS OF THE METHOD

For limitations of the method, please refer to the Instructions for use of culture media mentioned above.

12 - PRECAUTIONS AND WARNINGS

- The supplement is for microbiological control and for professional use only; it must be used by adequately trained and qualified laboratory personnel, observing approved biohazard precautions and aseptic techniques.
- The supplement is classified as dangerous according to European rules; consult the Safety Data Sheet before use.
- The supplement and the basal media shall be used in association according to the directions described above. Apply Good Manufacturing Practice in the production process of prepared media.
- The supplement is sterilized by membrane filtration.
- Be careful when opening the metal ring to avoid injury.
- All laboratory specimens should be considered infectious.
- The laboratory area must be controlled to avoid contaminants such as medium powder and supplements or microbial agents.
- Sterilize all biohazard waste before disposal. Dispose the unused supplements and the sterilized media inoculated with samples or microbial strains in accordance with current local legislation.
- Do not use the supplement as active ingredients for pharmaceutical preparations or as production materials intended for human and animal consumption.
- The Certificates of Analysis and the Safety Data Sheet of the product are available on the website www.biolifeitaliana.it.
- The information provided in this document has been defined to the best of our knowledge and ability and represents a guideline for the proper use of the product but without obligation or liability. In all cases existing local laws, regulations and standard procedures must be observed for the examination of samples collected from human and animal organic districts, for environmental samples and for products

intended for human or animal consumption. Our information does not relieve our customers from their responsibility for checking the suitability of our product for the intended purpose.

13 - STORAGE CONDITIONS AND SHELF LIFE

Upon receipt, store the product in the original package at 2-8°C away from direct light. If properly stored, the product may be used up to the expiry date printed on the label; do not use beyond this date. Once the vial has been opened and the lyophilised product has been reconstituted, the resulting solution should be used immediately. Before use, examine the lyophilized and reconstituted product and discard if there are obvious signs of deterioration (e.g., contamination, atypical colour or other abnormal characteristics).

14 - REFERENCES

1. Chapman PA, Siddons CA, Zadik PM, Jewes L. An improved selective medium for the isolation of Escherichia coli O157. J Med Microbiol. 1991:35(2):107-10.
2. Zadik PM, Chapman PA, and Siddons CA. Use of tellurite for the selection of verocytotoxigenic Escherichia coli O157. J. Med. Microbiol 1993; 39:155-158
3. ISO 16654:2001. Microbiology of food and animal feeding stuffs- Horizontal method for detection of E.coli O157
4. U.S. Food and Drug Administration. Bacteriological Analytical Manual. Chapter 4a Diarrheagenic Escherichia coli. Rev October 2018

TABLE OF APPLICABLE SYMBOLS

REF or REF Catalogue number	LOT Batch code	Use by	Fragile, handle with care	Manufacturer
Temperature limitation	Contents sufficient for <n> tests	Consult Instructions for Use	Store away from direct light	This side up

REVISION HISTORY

Version	Description of changes	Date
Revision 0	First edition	2025/03

Note: minor typographical, grammatical, and formatting changes are not included in the revision history.