

SMAC Media Cefixime-Tellurite (CT) Supplement

For research use only

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1. PRODUCT DESCRIPTION

1.1 Intended Use

This product is intended for use in the preparation of Cefixime-Tellurite Sorbitol MacConkey agar medium (CT-SMAC media).

This media is used for isolation of *E. coli* O157.

1.2 Intended User

Any laboratory skilled in the preparation of culture media for microbiological purposes. The user must be skilled in using conventional microbiological techniques and in interpreting results.

1.3 Principle

The CT Supplement is added to a standard Sorbitol MacConkey agar media which is an internationally accepted culture media for the selective isolation of *Escherichia coli* O157 colonies after ImmunoMagnetic Separation (IMS) with Dynabeads® anti-*E. coli* O157 (Cat. no. 710.03 / 710.04). *E. coli* O157 forms colourless but otherwise typical colonies on this media as it is unable to ferment sorbitol. Interpretation of presumptive results depends on the skill of the user to correctly identify and differentiate the isolated colonies based on typical *E. coli* O157 morphology. Suspect colonies must be confirmed by stan-

dard biochemical and serological test methods.

1.4 Description of materials

1 vial containing 1 mg Cefixime (blue cap).

1 vial containing 50 mg Potassium Tellurite (green cap).

These reagents are sufficient to make 20 liters of CT-SMAC media

Materials not supplied

Sterile distilled water
Sorbitol MacConkey agar media
Assorted labware

2. PROTOCOL

2.1. Preparation of Cefixime stock solution

Add 7.5 ml of sterile distilled water to the vial of Cefixime.

Dissolve completely and gently vortex to ensure complete mixing.

2.2 Preparation of Potassium Tellurite stock solution

Add 7.5 ml of sterile distilled water to the vial containing Potassium Tellurite.

Dissolve completely and gently vortex to ensure complete mixing.

2.3 Preparation of CT-SMAC media

Prepare 1 litre Sorbitol MacConkey agar as directed by manufacturer.

After autoclaving, cool to 55°C

Add 375 µl of the cefixime stock solution (giving a final concentration of 0.05 mg/l).

Add 375 µl of potassium tellurite stock solution (giving a final concentration of 2.5 mg/l).

Aseptically pour into petri-plates, cool and store at 4°C.

NOTE: Prepared plates are stable for two weeks when stored under refrigeration. The performance of this media is dependent on the appropriate storage and preparation of the SMAC media and this CT Supplement.

2.4 Suggested quality control

Prepared plates should be quality controlled by verifying the ability to support the growth of an *E. coli* O157 strain. Suggested quality control strains are:

E. coli ATCC 25922 and *E. coli* O157 NCTC 12900.

3. GENERAL INFORMATION

Manufactured by Invitrogen Dynal AS. Invitrogen Dynal AS complies with the system standards ISO 9001:2000 and ISO 13485:2003.

3.1 Storage/Stability

Un-opened CT supplement reagents are stable until the expiration date indicated on the label when stored at 2-8°C.

Note: Storage of the supplements once reconstituted is not recommended as the stability of the compounds cannot be guaranteed in aqueous solution.

3.2 Technical Service

Please contact Invitrogen for further technical information at <http://www.invitrogen.com/contact>.

A certificate of Analysis (CoA) is available on request.

3.3 Warnings and Limitations

The product is for research use only. Not intended for any animal or human therapeutic or diagnostic use unless otherwise stated.

Material Data Safety Sheet is available from <http://www.invitrogen.com>.

3.4 Patents and Trademarks

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3.7 Warranty

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4. REFERENCES

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3. FDA, Bacteriological Analytical Manual (BAM). AOAC Intl. Arlington, VA.
4. The Compendium of Analytical Methods, Health Canada. Update: September 1995, Spring 1997.

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