

Specification

Sterile selective supplement used for *Yersinia sp.* isolation according to ISO 10273:2003.

Presentation

10 Freeze dried vials
Vial
with: 3 ± 0.1 g

Packaging Details

23x60 mm glass vials, tag labelled, White plastic cap - 10 vials per box.

Shelf Life

49 months

Storage

2-25 °C

Composition

Composition (g/vial)

Cefsulodin..... 0.00750
Irgasan®..... 0.00200
Novobiocin..... 0.00125

Note: Each via is sufficient to supplement 500 ml of Yersinia CIN Base

Reconstitute the original freeze-dried vial
by adding

Sterile Distilled Water..... 6 ml

Description /Technique

Description:

Yersinia Selective supplement is based on the formulation of Schiemann and is added to Yersinia medium base (CIN) in order to obtain a final selective medium for the isolation and enumeration of *Yersinia enterocolitica* from clinical specimens and food.

Yersinia enterocolitica is becoming increasingly recognised as a cause of diarrhoeal disease of man and also polyarthritis, mesenteric adenitis and septicaemia.

Technique:

Collect, dilute and prepare samples and volumes as required according to specifications, directives, official standard regulations and/or expected results.

Reconstitute the vial with 5 ml of sterile diluent in aseptic conditions and add it to 500 ml of sterilized Yersinia enterocolitica agar base cooled to 50°C.

Do not overheat once supplemented.

Pour the complete medium into Petri dishes and, once solidified on a flat surface, spread the plates by streaking methodology or by spiral method.

Incubate the plates in aerobic atmosphere at $30 \pm 2^\circ\text{C}$ for 24-48h.

Incubation times longer than those mentioned above or different incubation temperatures may be required depending on the sample, on the specifications.

After incubation, enumerate all the colonies that have appeared on the surface of the agar that have a red bull's-eye surrounded by a transparent border shape.

Presumptive isolation / recovery of *Yersinia enterocolitica* must be confirmed by further microbiological and biochemical tests.

Precautions:

For in vitro diagnostic use. Do not reuse. For professional use only.

Do not use the product if it shows evidence of microbial contamination, discoloration, drying, cracking or other signs of deterioration.

Quality control**Physical/Chemical control**

Color : Off-white

pH: at 25°C

Microbiological control

Reconstitute 1 vial as indicated in COMPOSITION; shake and dissolve completely

Add 1 vial to 500 ml of medium base. DO NOT HEAT once supplemented.

Analytical methodology according to ISO 11133:2014/A1:2018; A2:2020.

Distribute the complete medium, cooled to 50 °C, into 90 mm plates

Incubate according instructions for complete medium indicated in COMPOSITION.

Aerobiosis. Incubation at 30 ± 2 °C. Reading at 21 ± 3h

Microorganism*Escherichia coli* ATCC® 25922, WDCM 00013*Enterococcus faecalis* ATCC® 29212, WDCM 00087*Stph. aureus* ATCC® 25923, WDCM 00034*Yersinia enterocolitica* ATCC® 9610, WDCM 00038**Growth**

Partial Inhibition

Inhibited

Inhibited

Good

Sterility Control

Add 5 ml of the sample to:

100 ml TSB and 100 ml Thioglycollate.

Incubation 48 h at 30-35 °C and 48 h at 20-25 °C: NO GROWTH.

Bibliography

- ATLAS, R.M. & J.W. SNYDER (1995) Handbook of Media for Clinical Microbiology. CRC Press. Boca Raton. Fla. USA.
- BAYLIS, C.L. (Ed.) (2007) Manual of Microbiological Methods for the Food and Drinks Industry. 5th ed. Guideline No. 43, Campden & Chorleywood Food Research Association. (CCFRA). U.K.
- CORRY, J.E.L., G.D.W. CURTIS & R.M. BAIRD (2003) Handbook of Culture Media for Food Microbiology. Progress in Industrial Microbiology, vol. 37. Elsevier Science Amsterdam.
- De BOER, E. (2003) Isolation of *Yersinia enterocolitica* from foods in "Handbook of Culture Media for Food Microbiology". J.E.L. Corry et al. (Eds.) Elsevier Sci. B.V.
- FDA (Food and Drug Administrations) (1998) Bacteriological Analytical Manual. 8th ed, revision A. AOAC International. Gaithersburg. MD. USA.
- ISENBERG, H.D. (ed.) (1992) Clinical Microbiology Procedures Handbook. ASM. Washington. DC. USA.
- ISO Standard 10273 (2003) Microbiology of food and animal feeding stuffs - Horizontal method for the detection of presumptive pathogenic *Yersinia enterocolitica*.
- ISO 11133:2014/ Adm 1:2018. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.
- SCHIEMAN, D.A. (1979) Synthesis of a selective medium for *Yersinia enterocolitica*. Can. J. Microbiol. 25:1298-1304.
- SCHIEMAN, D.A. (1980) *Yersinia enterocolitica*: Observations on some growth characteristics and response to selective agents. Can. J. Microbiol. 26:1232-1240.
- SCHIEMAN, D.A. (1982) Development of a two step enrichment procedure for recovery of *Yersinia enterocolitica* from food. Appl. Environm. Microbiol. 43:14-27.
- WEAGANT, S.D. & P. FENG (2001) *Yersinia*, in "Compendium of Methods for the Microbiological Examination of Foods". 4th ed. Downes & Ito (Eds.) APHA. Washington. DC. USA.