

Yersinia Selective Agar Base acc. to SCHIEMANN (CIN-Agar)

Medium proposed by SCHIEMANN (1979) for the selective cultivation of *Yersinia*, particularly *Y. enterocolitica* and *Y. pseudotuberculosis*, from clinical specimens, foodstuffs, water etc.

IVD

*in vitro diagnosticum –
For professional use only*



Principle

Microbiological method.

General Information

The medium complies with the recommendations of the APHA (1992) for food examination.

Mode of Action

The accompanying flora is largely inhibited by a mixture of antibiotics [Yersinia Selective Supplement (CIN)], crystal violet and bile salts. The growth of *Yersinia* is, however, promoted by pyruvate and a superior nutrient base. *Yersinia* degrade the present mannitol to form acid; the colonies therefore turn red due to a change in the colour of the indicator neutral red.

Typical Composition (g/litre)

Peptone from casein 10.0; peptone from meat 10.0; yeast extract 2.0; D(-)mannitol 20.0; sodium pyruvate 2.0; sodium chloride 1.0; magnesium sulfate 0.01; bile salt mixture 1.0; neutral red 0.03; crystal violet 0.001; agar-agar 12.5.

Preparation

Suspend 58.5 g/litre autoclave (15 min at 121 °C), cool to 45-50 °C. Add the contents of one vial of Yersinia Selective Supplement (CIN) to 500 ml culture medium and mix under sterile conditions. Pour plates.

pH: 7.4 ± 0.2 at 25 °C.

The plates are clear and red.

Storage

Usable up to the expiry date when stored dry and tightly closed at +15 to +25 °C. Protect from light.

After first opening of the bottle the content can be used up to the expiry date when stored dry and tightly closed at +15 to +25 °C.

Specimen

e.g. Stool, smears of infected tissue.

Clinical specimen collection, handling and processing, see general instructions of use.

*See also General Instruction of Use
Warnings and precautions see ChemDAT®
(www.chemdat.info)*

Experimental Procedure and Evaluation

Inoculate the plates with sample material from an enrichment culture, Yersinia Broth acc. to OSSMER, by the streak-plate method.

Incubation: 24-48 hours at 28 °C aerobically.

Yersinia grows to produce colonies that have a dark red centre and a transparent periphery. The size of the colonies, the width of their edges and their surface structure may vary depending on the serotype.

Certain accompanying microorganisms (e.g. some Enterobacteriaceae and Pseudomonas) may also sometimes exhibit scanty growth.

Literature

American Public Health Association: Compendium of Methods for the microbiological Examination of Foods. – 3rd ed. (1992).

BERINGER, T.: Erfahrungen mit einem neuen *Yersinia*-Nährboden. *Ärztl. Lab.*, 30, 327-330 (1984).

PRIMAVESI, C.A., u. LORRA-EBERTS, A.: Erfahrungen mit einem neu entwickelten Selectiv-Agar nach Schiemann zum Nachweis von *Yersinia enterocolitica*. – *Lab. med.*, 7; 59-61 (1983).

SCHIEMANN, D.A.: Synthesis of a selective agar medium for *Yersinia enterocolitica*. – *Canad. J. Microbiol.*, 25; 1298-1304 (1979).

Ordering Information

| Product | Ordering No. | Pack size |
|---|--------------|---------------|
| Yersinia Selective Agar Base acc. to SCHIEMANN (CIN-Agar) | 1.16434.0500 | 500 g |
| Yersinia Selective Enrichment Broth acc. to OSSMER | 1.16701.0500 | 500 g |
| Yersinia Selective Supplement (CIN) | 1.16466.0001 | 1 x 16 vials |
| Merckoplate® Yersinia Selective agar acc. to Schiemann (CIN-agar) | 1.13578.0001 | 1 x 20 plates |

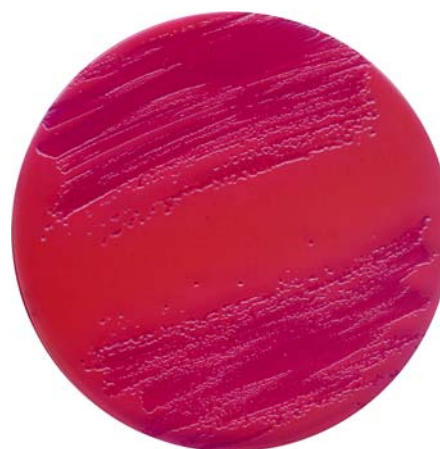
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Quality control

| Test strains | Growth | Red centre |
|---|------------------|------------|
| <i>Yersinia enterocolitica</i> ATCC 9610 | good / very good | + |
| <i>Yersinia enterocolitica</i> ATCC 35669 | good / very good | + |
| <i>Escherichia coli</i> ATCC 25922 | none | |
| <i>Salmonella typhimurium</i> ATC 14028 | none | |
| <i>Enterobacter cloacae</i> ATCC 13047 | none / poor | |
| <i>Staphylococcus aureus</i> ATCC 25923 | none | |



Yersinia enterocolitica ATCC 35669-4-60



Yersinia enterocolitica ATCC 9610-orig-20