

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 Diagnostic Medical Device –

For professional use only



Version 11-01-2011

Merck KGaA, 64271 Darmstadt

*See also General Instruction for Use
„How to use Dehydrated Culture Media“*

*For MSDS, warnings and precautions see our website:
www.merck-chemicals.com*

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.

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

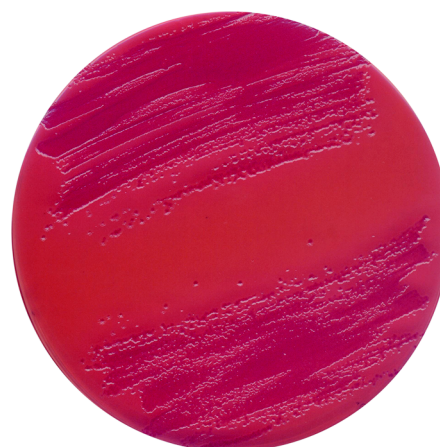
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Quality control

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