

## Technical Data Sheet

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

Ordering number: 1.16434.0500

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

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

IVD in vitro diagnosticum - For professional use only

### Mode of Action

The accompanying flora is largely inhibited by a mixture of antibiotics [Yersinia Selective Supplement (CIN)], crystal violet and bile salts. Addition of antibiotic supplement makes it highly selective for Yersinia. 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 color of the indicator neutral red.

The medium is highly selective against the growth of *Escherichia coli*, *Klebsiella pneumoniae*, *Proteus mirabilis*, *Pseudomonas aeruginosa*, *Salmonella enterica*, *Shigella sonnei*, and *Streptococcus faecalis*.

### Typical Composition

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.

## 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.



*Yersinia enterocolitica* ATCC 35669-4-6o



*Yersinia enterocolitica* ATCC 9610-orig-2o

## 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.



We provide information and advice to our customers on application technologies and regulatory matters to the best of our knowledge and ability, but without obligation or liability. Existing laws and regulations are to be observed in all cases by our customers. This also applies in respect to any rights of third parties. Our information and advice do not relieve our customers of their own responsibility for checking the suitability of our products for the envisaged purpose.

Merck Millipore and the M logo are registered trademarks of Merck KGaA, Darmstadt, Germany. ATCC is a registered trademark of ATCC, Manassas, VA, USA. Lit. No. TN1845EN00

## Quality Control

Control Strains	ATCC #	Inoculum CFU	Incubation	Expected Results
<i>Yersinia enterocolitica</i>	9610	> 10 <sup>4</sup>	24 h at 30 °C	Growth good / very good; Red centre
<i>Yersinia enterocolitica</i>	35669	> 10 <sup>4</sup>	24 h at 30 °C	Growth good / very good; Red centre
<i>Escherichia coli</i>	25922	> 10 <sup>4</sup>	24 h at 30 °C	Growth none
<i>Salmonella typhimurium</i>	14028	> 10 <sup>4</sup>	24 h at 30 °C	Growth none
<i>Enterobacter cloacae</i>	13047	> 10 <sup>4</sup>	24 h at 30 °C	Growth none / poor
<i>Staphylococcus aureus</i>	25923	> 10 <sup>4</sup>	24 h at 30 °C	Growth none

Please refer to the actual batch related Certificate of Analysis.

## 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	Cat. No.	Pack size
Yersinia Selective Agar Base acc. to SCHIEMANN (CIN-Agar)	1.16434.0500	500 g
Yersinia Selective Supplement (CIN)	1.16466.0001	1 x 16 vials

Merck KGaA, 64271 Darmstadt, Germany  
Fax: +49 (0) 61 51 / 72-60 80  
mibio@merckgroup.com  
[www.merckmillipore.com/biomonitoring](http://www.merckmillipore.com/biomonitoring)

Find contact information for your country at:  
[www.merckmillipore.com/offices](http://www.merckmillipore.com/offices)  
For Technical Service, please visit:  
[www.merckmillipore.com/techservice](http://www.merckmillipore.com/techservice)



We provide information and advice to our customers on application technologies and regulatory matters to the best of our knowledge and ability, but without obligation or liability. Existing laws and regulations are to be observed in all cases by our customers. This also applies in respect to any rights of third parties. Our information and advice do not relieve our customers of their own responsibility for checking the suitability of our products for the envisaged purpose.

Merck Millipore and the M logo are registered trademarks of Merck KGaA, Darmstadt, Germany. ATCC is a registered trademark of ATCC, Manassas, VA, USA. Lit. No. TN1845EN00