

## XILOSE LYSINE DEOXYCOLATE AGAR (EP Harm)

Medium for selective isolation of Gram negative enteric pathogens from faecal sample.

### TYPICAL FORMULA (g/l)

Yeast Extract	5.4
L-lysine	9.0
Xylose	6.3
Lactose	13.5
Sodium deoxycholate	4.5
Ammonium ferric citrate	1.5
Sodium thiosulfate	12.3
Sodium Chloride	9.0
Sigma 7-9	0.4
Sucrose	13.5
Phenol red sodium	0.1
Agar	24.5
Final pH 7.4 ±0.2	

### DESCRIPTION

**XILOSE LYSINE DEOXYCOLATE AGAR (EP Harm)** is a medium for selective isolation of Gram negative enteric pathogens from faecal sample.

### PRINCIPLE

Differentiation of *Salmonella* and *Shigella* from non-pathogenic bacteria is accomplished by three reactions: xylose fermentation, lysine decarboxylation and hydrogen sulphide production. Xylose allows to differentiate *Shigella* and *Providencia*, which ferment xylose slowly or not at all, from the other enterics, which ferment xylose rapidly. *Salmonella* are further differentiated from non pathogenic xylose fermenters by the lysine decarboxylase reaction. The production of hydrogen sulphide under alkaline conditions results in formation of colonies with black centres, whereas under acidic conditions, this black precipitation is inhibited.

### PREPARATION

Suspend 55,0 g in 1 litre of distilled water. Heat until completely dissolved. Dispense into final containers. Do not autoclave.

### TECHNIQUE

Inoculate the specimen, in order to obtain isolated colonies, streaking it onto the surface of the medium using a sterile loop. Incubate at 36°C ± 1°C for 18-24 hours.

### INTERPRETATION OF RESULTS

*Salmonella spp* produces red colonies with a black centre. *Shigella spp* colonies are red.

### STORAGE

10-30°C away from light, until the expiry date on the label or until signs of deterioration or contamination are evident.

### WARNING and PRECAUTIONS

The product is not classified as hazardous by current legislation and does not contain harmful substances in concentrations of ≥1%. The product must be used only by properly trained operators.

### DISPOSAL of WASTE

Disposal of waste must be carried out according to national and local regulations in force.

### REFERENCES

1. Taylor, W.I. (1965). Am. J. Clin. Pathol. 44(4) : 471-475.
2. Pollock, H.M., and B.J. Dahlgren (1974). Appl. Microbiol. 27(1): 197-201.
3. Association of Official Analytical Chemists (1996). Official methods of analysis of AOAC International.
4. ISO 6579: 2002. Microbiology of food and animal feeding stuffs – Horizontal method for the detection of *Salmonella spp*.



**Liofilchem s.r.l.**

Via Scozia-Zona industriale - 64026 Roseto degli Abruzzi Tel. +39.085.8930745 - Fax +39.085.8930330  
Web site: <http://www.liofilchem.net> E-mail: [liofilchem@liofilchem.net](mailto:liofilchem@liofilchem.net)

## PRODUCT SPECIFICATIONS

### NAME

**XILOSE LYSINE DEOXYCOLATE AGAR (EP Harm)**

### PRESENTATION

Dehydrated medium.

### PACKAGING

Code	Content	Packaging
610351	500 g	500 g of powder in plastic bottle
620351	100 g	100 g of powder in plastic bottle

### pH OF THE MEDIUM

7.4 ± 0.2

### USE

**XILOSE LYSINE DEOXYCOLATE AGAR (EP Harm)** is a selective medium used for the isolation of salmonellae and shigellae from clinical specimens and foods, as recommended by ISO 6579: 2002.

### TECHNIQUE

Refer to technical sheet of the product.

### SHELF LIFE










4 years

### QUALITY CONTROL

- Control of general characteristics, label and print
- Microbiological control  
 Inoculum for productivity: 10-100 UFC/ml  
 Inoculum for selectivity: 10<sup>4</sup>-10<sup>5</sup> UFC/ml  
 Inoculum for specificity: ≤ 10<sup>4</sup> UFC/ml  
 Incubation conditions: 18-24 h at 36 ± 1°C

Microorganism	ATCC	Growth	Characteristics
<i>Shigella flexneri</i>	ATCC 12022	Good	Red colonies
<i>Salmonella typhimurium</i>	ATCC 14028	Good	Red colonies with black centre
<i>Salmonella enteritidis</i>	ATCC 13076	Good	Red colonies with black centre
<i>Enterococcus faecalis</i>	ATCC 29212	Inhibited	
<i>Escherichia coli</i>	ATCC 25922	Poor	

### TABLE OF SYMBOLS

 Batch code	 Do not reuse	 Manufacturer	 Contains sufficient for <n> tests	 Temperature limitation
 Catalogue number	 Fragile, handle with care	 Use by	 Caution, consult accompanying documents	



**Liofilchem s.r.l.**

Via Scozia-Zona industriale - 64026 Roseto degli Abruzzi Tel. +39.085.8930745 - Fax +39.085.8930330  
 Web site: <http://www.liofilchem.net> E-mail: [liofilchem@liofilchem.net](mailto:liofilchem@liofilchem.net)