

## TRIBUTYRIN AGAR BASE

Basal medium for detection and enumeration of lipolytic microorganisms in foodstuffs and other materials

TYPICAL FORMULA	(g/l)
Peptone	5.0
Yeast Extract	3.0
Agar	15.0
Final pH 7.5 ± 0.2 at 25°C	

### DESCRIPTION

TRIBUTYRIN AGAR BASE is a basal medium for detection and enumeration of lipolytic microorganisms in foodstuffs and other materials. The medium can also be used for the detection of lipase in various bacterial species such as staphylococci, clostridia, Pseudomonas, marine flavobacteria etc.

### PRINCIPLE

Peptone and yeast extract provide nitrogen and vitamins required for organism growth. Agar is the solidifying agent. The culture medium must be supplemented with tributyrin (GLYCERYL TRIBUTYRATE, ref. 80301). This compound gives rise to clear zones surrounding the lipolytic colonies in the otherwise turbid culture medium.

### PREPARATION

Suspend 23 g of powder in 1000 ml of distilled water. Heat until completely dissolved. Add 10 ml of GLYCERYL TRIBUTYRATE (ref. 80301). Mix thoroughly. Autoclave at 121°C for 15 minutes. While shaking frequently (emulsification of the tributyrin) cool to 45-50°C. Pour in petri dishes.

### TECHNIQUE

Inoculate the culture medium by spreading the the sample material on the surface of the plates. Incubate at 28°C up to 72 hours.

### INTERPRETATION OF RESULTS

Lipolytic microorganisms produce colonies which are surrounded by clear zones in the otherwise turbid culture medium.

### STORAGE

The powder is very hygroscopic, store the powder at 10-30°C, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until signs of deterioration or contamination are evident. Store prepared plates at 2-8°C away from light.

### WARNING AND PRECAUTIONS

The product does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous. It is nevertheless recommended to consult the safety data sheet for its correct use. 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. Anderson J.A. (1939) The use of tributyrin agar in dairy bacteriology. Ber. 3. Int. Mikrobiol. Kongress, 3:276-278.
2. Innes A.G. (1956) Coagulase positive staphylococci from bulk milk supplies low in solids-notfat. J. Appl. Bact., 19:39-45.
3. Hayes P.R. (1963) Studies on marine flavobacteria. J. Gen. Microbiol., 30:1-19.
4. Willis A.T. (1960) The lipolytic activity of some clostridia. J. Path. Bact., 80:379-390.



**LIOFILCHEM® S.r.l.**

Via Scozia, Zona Ind.le - 64026, Roseto degli Abruzzi (TE) - ITALY  
Tel +39 0858930745 Fax +39 0858930330 Website: [www.liofilchem.net](http://www.liofilchem.net) E-mail: [liofilchem@liofilchem.net](mailto:liofilchem@liofilchem.net)

## PRODUCT SPECIFICATIONS

### NAME

TRIBUTYRIN AGAR BASE

### PRESENTATION

Dehydrated medium

### STORAGE

10-30°C

### PACKAGE

Ref.	Content	Packaging
610215	500 g	500 g of powder in plastic bottle
620215	100 g	100 g of powder in plastic bottle

### pH OF THE MEDIUM

7.2 ± 0.2

### USE

TRIBUTYRIN AGAR BASE is a basal medium for detection and enumeration of lipolytic microorganisms in foodstuffs and other materials

### TECHNIQUE

Refer to technical sheet of the product

### APPEARANCE OF THE MEDIUM

#### Dehydrated medium

Appearance: homogeneous

Colour: beige

#### Prepared medium

Appearance: opalescent

Colour: beige

### SHELF LIFE










4 years

### QUALITY CONTROL

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

Microorganism	ATCC	Clear zones surrounding the colonies
<i>Escherichia coli</i>	25922	-
<i>Salmonella typhimurium</i>	14028	-
<i>Pseudomonas aeruginosa</i>	27853	+
<i>Staphylococcus aureus</i>	25923	+
<i>Bacillus subtilis</i>	6633	+

### TABLE OF SYMBOLS

 Batch code	 Keep away from heat sources	 Manufacturer	 Use by	 Fragile, handle with care
 Catalogue number	 Temperature limitation	 Contains sufficient for <n> tests	 Consult instructions for use	



**LIOFILCHEM® S.r.l.**

Via Scozia, Zona Ind.le - 64026, Roseto degli Abruzzi (TE) - ITALY

Tel +39 0858930745 Fax +39 0858930330 Website: www.liofilchem.net E-mail: liofilchem@lioilchem.net