OXFORD LAB FINE CHEM LLP
ISO 9001-2008 Certified Company

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TECHNICAL DATA SHEET

Tributyrin Agar Base w/o Tributyrin (TBA)

Principle

Tributyrin agar is used for the detection and enumeration of lipolytic microorganisms such as *Staphylococci*, *Clostridia*, and *Pseudomonas* and molds in foodstuffs and other materials. Tributyrin is the simplest triglyceride occurring in natural fats and oils. It is hydrolyzed by some microorganisms. The basal medium is composed of peptone, yeast extract and agar. Peptone and yeast extract in the medium provide nutrients to the organisms. Agar is solidifying agent. Tributyrin is added to the medium for isolation of lipolytic microorganism. Tributyrin degradation by the microorganisms is indicated by clear zones surrounded by the lipolytic bacteria. Lipolytic organisms turn the medium transparent by converting the fat to water soluble butyric acid.

Use: For cultivation and enumeration of lipolytic microorganisms.

Contents*

Ingredients	Gram/Litre
Peptone	5.00
Yeast Extract	3.00
Agar	15.00
pH at 25˚C	7.5 ±0.2

*** Formula adjusted for optimum performance and parameters**

Directions: Dissolve 23.00 grams in 990 ml distilled water, add 10.0 ml of tributyrin. Mix well and boil to dissolve the medium completely. Sterilize by autoclaving at 15 lbs. pressure (121°C) for 15 min, cool it to 42-45 °C and distribute aseptically in petri plates. Ensure complete solidification and inoculate test sample aseptically.

Specimens types analyzed

Food and dairy samples etc.

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Precautions to be taken

These microbial media are intended for the in-vitro use only. All the handling, experiments, storage, and discarding should be performed with the help of skilled and knowledgeable technicians and as per the established guidelines. The material should be disposed only after proper sterilization by autoclaving. Please go through the MSDS of the media to avoid any accidents or in emergency.

Performance and Evaluation

The expected performance of the medium is liable to use as per the direction on the label when stored at optimum conditions and within expiry date.

Quality Control

Appearance	**Beige colored free flowing, homogeneous powder**
Reaction of 2.3% solution and 0.1% tributyrin	**7.5 ±0.2 at 25 ˚C**
pH	**7.30- 7.70**
Gelling	**Firm comparable with 1.5% agar gel**
Color and clarity of ready medium	**Light amber colored opalescent gel with tributyrin drop lets.**
Growth Promotion properties	**Best at ≤ 100 CFU at 32-37 ºC for 18-72 h**
Indicative properties	**Optimum at ≤ 100 CFU at 32-37 ºC for 18-48 h**
Negative control	**Performed using sterile distilled water**

Different Microbial Response: Prepare media as per the label directions. Inoculate and incubate the media at 35±2°C for 18-48 hours.

Organism	ATCC	Inoculum (CFU)	Growth	Lipolytic activity
Bacillus spizizenii	**6633**	**50-100**	**Luxuriant**	**Positive**
Escherichia coli	**8739**	**50-100**	**Luxuriant**	**Negative**
Staphylococcus aureus	**25923**	**50-100**	**Luxuriant**	**Positive**
Clostridium perfringens	**3624**	**50-100**	**Luxuriant**	**Negative**
Clostridium sporogenes	**11437**	**50-100**	**Luxuriant**	**Negative**

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Storage and Shelf Life: The product is highly hygroscopic; keep the container tightly closed at all times and store it properly as per the conditions mentioned on the label. The declared expiry is valid only when stored as per the conditions mentioned on the label. Note: Sterilize media immediately after reconstitution.

Disposal: To avoid the contamination or propagation of any hazardous microbes the used, unusable or modified preparation of this product must be disposed after autoclaving after completion of task.

Reference

1. **Atlas, R. M. (2005). Handbook of media for environmental microbiology. CRC press.**
2. **Difco Manual (1998). 11th Edition. Difco Laboratories., Division of Becton Dickinson and Company, Sparks, Maryland, USA.**

Disclaimer:

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