ARENA BioScien

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Tributyrin Agar

Tributyrin a gar is design For the detection and enumeration of lipolytic microorganisms in food and other material (staphylococci, pseudomonads, clostridiae and marine flavobacteria).

REF: BS.1/NZ01.100.0100	100 Gram	REF: BS.1/NZ01.250.0250	250 Gram
REF: BS.1/NZ01.500.0500	500 Gram		

PRINCIPLE AND INTERPERTATION :

Tributyrin Agar was originally formulated by Anderson for the detection and enumeration of lipolytic microorgannisms such as Staphylococci , Clostridia , marine Flavobacteria and Pseudomonas and moulds in foodstuffs and other materials. It has beeen reported that other glycerides such as Triolein and Trilinolein may be used instead of Tributyrin. According to Rapp, better emulsification of Tributyrin can be achieved if 4 ml Polyoxyethylene-(20)- hydrated castor oil is added to 1 litre of the culture medium. Special peptone and yeast extract provide nutrients e.g. organic nitrogen, carbon compounds and other growth factors like vitamines to the organisms. Tributyrin degradation by the microorganisms is indicated by clear zones surrounding the lipolytic colonies in the otherwise turbid culture medium.

MEDIA COMPOSITION

Item	Formula per liter of medium
Special peptone	5.00 gm
Yeast extract	3.00 gm
Agar	12.00 gm

Final pH (at 37°C) 7.5 ± 0.2 ** Formula adjusted, standardized to suit performance parameters.

PRECAUTIONS AND WARNINGS

Media to be handled by entitled and professionally educated person. Do not ingest or inhale.
Good Laboratories practices using appropriate precautions should be followed in:Wearing personnel protective equipment (overall, gloves, glasses,).

- Do not pipette by mouth.
- In case of contact with eyes or skin; rinse immediately with plenty of soap and water. In case of severe injuries; seek medical advice immediately.
- Respect country requirement for waste disposal.
  S56: dispose of this material and its container at hazardous or special waste collection point.
  S57: use appropriate container to avoid environmental contamination.
  S61: avoid release in environment.

For further information, refer to the Tributyrin Agar material safety data sheet.

STORAGE AND STABILITY

BioScien Tributyrin Agar Stored prepared media below 8°C, protected from direct light. Store dehydrated powder, in a dry place, in tightly-sealed containers at 2-25°C. . Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected fromextremes of temperature and sources of ignition. Seal the container tightly after use. Product performance is best if used within stated expiry period. Store dehydrated powder in a dry place in tightly-sealed containers at 2-25°C. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use. Use before expiry date on the label. Product performance is best if used within stated expiry period.

PREPARATION

Suspend 20 g in 1 litre distilled water. Sterilize by autoclaving at 121°C for 15 minutes. Let cool to 80°C and add 10g neutral Tributyrin (91010). Mix thoroughly to emulsify the Tributyrin completely. Pour plates in order to maintain uniform turbidity. If the emulsion separates, the effectiveness of the culture medium is affected.

EQUIPMENT REQUIRED NOT PROVIDED

- Sterile petri dishes
- Incubator
- Autoclave

PERFORMANCE CHARACTERISTICS

Cultural characteristics observed after 24-48 hours at 35-38°C, in an appropriate atmosphere:

Organisms (ATCC)	Growth	Lipase activity
Bacillus subtilis 6633	+++	+
Escherichia coli ATCC 25922	+++	-
Clostridium sporongens 11437	+++	+
Staphylococcus aureus subsp. aureus ATCC 25923	+++	+
Clostridium perfringens 12924	+++	-
Salmonella typhimurium (14028)	+++	–
Pseudomonas aeruginosa (27853)	+++	+
Penicillium commune (10428)	+	+

QUALITY CONTROL

To ensure adequate quality control, it is recommended that positive and negative control included in each run. If control still out of range please contact ***BioScien*** technical support.

REFERENCE

1 . J.A. Anderson, Ber. Iird. Int. Mikrobiol. Kongress, 3, 726-728 (1939)
2. A.G. Imnes, J. Appl. Bact., 19, 39-45 (1956)
3. A.T. Willis, J. Path. Bact., 80, 379-390 (1960)

IVD	For in-vitro diagnostic use	Σ	Number of <n> test in the pack
LOT	Batch Code/Lot number		Caution
REF	Catalogue Number		Do not use if package is damaged
	Temperature Limitation		Consult Instruction for use
	Expiration Date		
	Manufactured by		