Tomato Juice Agar, Special

M879

Intended Use:

Used for the cultivation and enumeration of Lactobacilli from saliva and other acidophilic bacteria.

Composition**

Ingredients	g / L
Tomato juice (400 ml)	20.000
Peptone	10.000
Peptonized SM powder#	10.000
Agar	20.000
Final pH (at 25°C)	5.0±0.2

**Formula adjusted, standardized to suit performance parameters
Equivalent to Peptonized milk

Directions

Suspend 60.0 grams in 1000 ml purified/distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C. Mix well and pour into sterile Petri plates.

Principle And Interpretation

Lactic acid bacteria are acid-tolerant, non-sporulating rods or cocci widely distributed in nature and historically linked to food fermentation. Lactobacilli form the normal flora of the human mouth, intestinal tract and vagina and may therefore be recovered from pathological specimens as contaminants (1). Tomato juice was included in media for lactobacilli (2) and was found to be advantageous for its growth, particularly *Lactobacillus acidophilus* (3).

Tomato Juice Agar, Special is formulated as per Jay (4,5) for the direct plate count of lactobacilli and other acidophilic bacteria, especially from saliva (6). Tomato Juice Agar, Special is similar to Tomato Juice Agar, except that the agar concentration is increased to 20 grams per liter and the pH is adjusted to 5.0 in the former.

Tomato juice provides an acid environment and is also a source of carbon, and other essential nutrients. Peptonized SM powder provides lactose, which acts as the energy source. Peptone provides nitrogenous, carbonaceous compounds, trace elements and other essential growth nutrients. The low pH of medium inhibits many commensal bacteria and encourages growth of Lactobacilli. Tomato Juice Agar, Special is more selective than Tomato Juice Agar (6).

Type of specimen

Clinical samples - Saliva

Specimen Collection and Handling:

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (7,8).
After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

In Vitro diagnostic Use. For professional use only. Read the label before opening the container. Wear protective gloves/ protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations :

1. Individual organisms differ in their growth requirement and may show variable growth patterns on the medium.
2. Each lot of the medium has been tested for the organisms specified on the COA. It is recommended to users to validate the medium for any specific microorganism other than mentioned in the COA based on the user's unique requirement.
3.Further biochemical and serological tests must be carried out for complete identification.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control

Appearance

Cream to yellow homogeneous free flowing powder

Gelling

Firm, comparable with 2.0% Agar gel.

Colour and Clarity of prepared medium

Medium amber coloured clear to slightly opalescent gel forms in Petri plates.

Reaction

Reaction of 6.0% w/v aqueous solution at 25°C. pH : 5.0±0.2

pH

4.80-5.20

Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organism	Inoculum (CFU)	Growth	Recovery
Lactobacillus acidophilus ATCC 4356 (00098*)	50-100	luxuriant	>=50%
Lactobacillus casei ATCC 9595	50-100	luxuriant	>=50%
Lactobacillus leichmannii ATCC 4797	50-100	luxuriant	>=50%
Staphylococcus aureus subsp. *aureus* ATCC 25923 (00034*)	>=10^4	inhibited	0%

Key : (*) Corresponding WDCM numbers.

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 20-30°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 from extremes of temperature and sources of ignition. Seal the container tightly after use. Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (7,8).

Reference

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3. Kulp W. L., 1927, Science 66:512.

4. Jay P., Pelton W. and Wisan J.,1949, Dentistry in Public Health, W. B. Saunders Company, Philadelphia, Pa.

5. Jay P. and Gordon S., (Eds.), 1938, Bacteriology and Immunology of Dental Caries and Dental Science and Dental Art, Lea and Febiger, Philadelphia, Pa.

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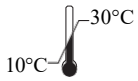
IVD ***In vitro*** **diagnostic medical device**



Storage temperature

EC REP CEpartner4U, Esdoornlaan 13,
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CE **CE Marking**

Do not use if package is damaged

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