

Technical Information

ASLA Agar Base

Product Code: DM 1904

Application: - ASLA Agar is used for selective isolation and cultivation of *Propionibacterium* from foods samples .

Composition**

Ingredients	Gms / Litre
Ammonium sulphate	3.000
Disodium phosphate	1.200
Monopotassium phosphate	1.200
Manganese sulphate	0.050
Magnesium sulphate	0.200
Ferric sulphate	0.040
L-Cysteine hydrochloride	0.500
Agar	10.000
Final pH (at 25°C)	6.5±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Propionibacteria are difficult to isolate from foods and other natural sources. They grow slowly on solid media and prefer anaerobic or microaerophilic conditions. Selective media designed for *Propionibacteria* are based on their ability to metabolize lactic acid under anaerobic conditions (1). Sodium Lactate Agar was originally described by Vedamuthu and Reinbold (2). Later other scientists (3) described a defined selective medium namely ASLA Agar for the isolation of *Propionibacteria* from cheese which is also recommended by APHA (1). Ammonium sulphate in the medium acts as source of nitrogen and sodium lactate as carbon source respectively . L-cysteine, an amino acid, is a reducing agent. Phosphates buffer the medium whereas salts provide trace elements. The individual colonies may be confirmed as *Propionibacteria* by microscopic examination for typical pleomorphic rod shape and by detection of propionic acid production by gas chromatography or HPLC. However this medium fail to support the growth of all *Propionibacteria* present in natural sources.

Methodology

Suspend 8.1 grams of powder media in 500 ml distilled water. Shake well & heat to boil to dissolve the medium completely. Add 10 grams of Sodium lactate. Mix well and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45°C and aseptically add rehydrated contents of 1 vial of Propionibacteria Growth Supplement (MS2097). Mix thoroughly and pour into sterile Petri plates or tubes.

Quality Control

Physical Appearance

Cream to yellow homogeneous free flowing powder

Gelling

Firm, comparable with 1.0% Agar gel.

Colour and Clarity of prepared medium

Light yellow coloured clear to slightly opalescent gel forms in Petri plates or tubes.

Reaction

Reaction of 1.62% w/v aqueous solution with added sodium lactate at 25°C. pH : 6.5±0.2

pH Range:- 6.30-6.70



Dehydrated Culture Media
Bases / Media Supplements

Cultural Response/Characteristics

DM 1904: Cultural characteristics observed under anaerobic or microaerophilic conditions with added sterile Propionibacteria growth supplement (MS2097) after an incubation at 30-32°C for 11-14 days.

Organism

*Propionibacterium
acidipropionici (25562)*

Growth

good-luxuriant

Storage and Shelf Life

Dried media: Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.

Prepared Media: 2-8°C in sealable plastic bags for 2-5 days.

1. Vanderzant C. and Splittstoesser D. F., (Eds.), 1992, Compendium of Methods for the Microbiological Examination of Foods, 3rd Ed., APHA, Washington D.C.
2. Vedamuthu E. R., and Reinbold G. W., 1967, Milchwissenschaft; 22:428.
3. Peberdy M. F. and Fryer T. F., 1976, N. Z. J. Dairy Science Technol. , 11:10.

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