

# **Technical Information**

## Forget Fredette Agar

Product Code: DM 1431

**Application:** - Forget Fredette Agar is used for selective isolation of anaerobic microorganisms from a mixture of aerobic and anaerobic flora.

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Ingredients	Gms / Litre	
Casein enzymic hydrolysate	17.000	
Papaic digest of soyabean meal	3.000	
Sodium chloride	5.000	
Dextrose	2.500	
Dipotassium phosphate	2.500	
Sodium azide	0.500	
Agar	10.000	
Final pH ( at 25°C)	7.4±0.2	
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<sup>\*\*</sup>Formula adjusted, standardized to suit performance parameters

### Principle & Interpretation

Anaerobic bacteria are widely distributed in nature in oxygen-free environment When collecting specimens from patients for isolation and identification of anaerobic bacteria, care should be taken that the specimens should be free of contaminating bacteria. Material from sites that are normally sterile, such as blood, spinal fluid, or pleural fluid, poses no problem provided the proper precautions are taken to decontaminate the skin properly before puncturing it to obtain the requiste specimen. Fecal, sputum or vaginal secretions cannot be cultured routinely for pathogenic anaerobes because they contain other aerobic organisms. Also aspirates from abscesses or the specific sites of infections must be obtained with care to avoid undue contamination of clinical with indigenous flora components. Forget-Fredette Agar is based on the formula described by Fredette et al <sup>(1)</sup> and Forget and Fredette <sup>(2)</sup>, It is used for selective isolation of anaerobic microorganisms from a mixture of aerobic and anaerobic flora. Forget and Fredette used this medium to study the anaerobic flora in chronic nasal sinusitis.

Papaic digest of soyabean meal and casein enzymic hydrolysate provide the necessary nutrients to the anaerobic microorganisms. Dextrose is the carbohydrate source. Dipotassium phosphate buffers the medium. Sodium azide inhibits the growth of not only gram-negative cocci and bacilli but also most of the gram-positive aerobes. Forget Fredette Agar allows the growth of Clostridia, Fusiforms, *Ristella*, Sphaerophorus and Streptococci deep in the medium tubes. *Bacillus* species, Listeria and most gram-negative organisms are inhibited on this medium. This medium can also be used for surface cultivation of anaerobes in plates in anaerobic jars. However for this purpose, it is recommended to add about four grams of agar to the medium before sterilization. The test sample is inoculated deep into the medium to facilitate isolation of anaerobic bacteria.

## Methodology

Suspend 40.5 grams of powder media in 1000 ml distilled water. If desired add 3 more grams of agar. Shake well & heat with frequent agitation to dissolve the medium completely. Dispense in tubes. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Warning: Sodium azide has a tendency to form explosive metal azides with plumbing materials. It is advisable to use enough water to flush off the disposables.





## **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

Yellow coloured, clear to slightly opalescent gel forms in tubes

#### Reaction

Reaction of 4.05% w/v aqueous solution at 25°C. pH: 7.4±0.2

pH range 7.20-7.60

### Cultural Response

DM 1431: Cultural characteristics observed after an incubation at 35-37°C for 24-48 hours (Clostridium species incubated anaerobically).

Organism	Inoculum (CFU)	Growth
Clostridium perfringens ATCC 12924	50-100	good-luxuriant
Streptococcus pneumoniae ATCC 6303	50-100	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**:  $2-8^{\circ}$  in sealable plastic bags for 2-5 days.

# **Further Reading**

- 1. Fredette, Auger and Forget, 1961, Can. Med. A.J., 84:164.
- 2. Forget and Fredette, 1962, J. Bacteriol., 83:121.

### Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conform solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate.
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