



## Forget Fredette Agar

M431

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

### Composition\*\*

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

\*\*Formula adjusted, standardized to suit performance parameters

### Directions

Suspend 40.5 grams in 1000 ml distilled water. If desired add 3 more grams of agar. 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.

### Principle And Interpretation

Anaerobic bacteria are widely distributed in nature in oxygen-free habitats. When collecting specimens from patients for isolation and identification of anaerobic bacteria associated with infections, 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 usual precautions are taken to decontaminate the skin properly before puncturing it to obtain the specimen. Fecal specimens, sputum specimens, or vaginal secretions cannot be cultured routinely for pathogenic anaerobes because they normally contain other aerobic organisms. Aspirates from abscesses or the specific sites of infections must be obtained in these cases to avoid undue contamination with indigenous flora components. Forget-Fredette Agar is based on the formulation described by Fredette et al (1) and Forget and Fredette (2), and it is used for selective isolation of anaerobic microorganisms from a mixture of aerobic and anaerobic flora. Forget and Fredette employed 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 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 in the depths of 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 into the depths of the medium tube to facilitate isolation of anaerobic bacteria.

### Quality Control

#### 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**

7.20-7.60

**Cultural Response**

M431: Cultural characteristics observed after an incubation at 35-37°C for 24-48 hours (Clostridium species incubated anaerobically).

<b>Organism</b>	<b>Inoculum (CFU)</b>	<b>Growth</b>
<b>Cultural Response</b>		
<i>Clostridium perfringens</i> ATCC 12924	50-100	good-luxuriant
<i>Streptococcus pneumoniae</i> ATCC 6303	50-100	good-luxuriant

**Storage and Shelf Life**

Store below 30°C in tightly closed container and the prepared medium at 2 - 8°C. Use before expiry date on the label.

**Reference**

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

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**Disclaimer :**

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