

Technical Information

Preston MiVeg Agar Base

Product Code: VM1939

Application: Preston MiVeg Agar Base with added supplement is recommended for the selective isolation of thermotolerant *Campylobacter* species.

Composition

Ingredie	nts	Gms / Litre
MiVeg pept	tone	10.0
MiVeg extr	ract	10.0
Sodium chl	loride	5.0
Agar		12.0
Final pH (at	25°C)	7.5 ± 0.2

^{**} Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Preston MiVeg Agar Base is prepared by adding vegetables peptones instead of animal based peptone thus making the medium free from BSE/TSE risks. Preston MiVeg Agar Base is the modification of medium described by Bolton and Robertson (1) for isolation of *Campylobacter* species and is also recommended by APHA (2). *Campylobacter* species can be isolated with or without enrichment in selective broth. Direct plating onto selective agar without any enrichment is adequate for fresh faecal samples, or intestinal specimens, whereas in case of food samples enrichment is required. *Campylobacter* species grows well under microaerobic environment i.e. in 5% Oxygen at 42°C for about 48 hours. *C. jejuni* growth swarms onto a moist media, which is a useful diagnostic growth characteristic, however, this type of confluent growth makes it difficult to obtain isolated colonies. Addition of about 4 drops of glycerol to a filter paper kept within the jar/container will hamper confluent and swarming growth of *Campylobacter* (3). The antibiotic supplement renders it selective for *Campylobacter* species.

Methodology

Suspend 18.5 grams of powder media in 470 ml distilled water. Mix thoroughly and 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 and aseptically add 25 ml sterile, lysed horse blood and reconstituted contents of Campylobacter Selective Supplement IV (MS2042). Mix well before pouring into sterile petri plates.

Quality Control

Physical Appearance

Yellow coloured, may have slightly greenish tinge, homogeneous, free flowing powder.

Gelling

Firm, comparable with 1.2% Agar gel.

Colour and Clarity of prepared medium

Basal medium forms light yellow coloured clear to slightly opalescent gel. When sterile lysed horse blood added, chocolate brown coloured opaque gel forms in the petri plates.

Reaction

Reaction of 3.7% w/v aqueous solution is pH 7.5 \pm 0.2 at 25°C.

pH Range

7.3-7.7





Cultural Response/Characteristics

Cultural characteristics observed after an incubation at 42°C for 24-48 hours in presence of 5% Oxygen, 10% Carbon dioxide and 85% Nitrogen.

Organisms (ATCC) Growth*

Campylobacter coli (33559) Iuxuriant

Campylobacter jejuni (29428) Iuxuriant

Escherichia coli (25922) Inhibited

Staphylococcus aureus (25923) inhibited

Key: * = > With added Campylobacter Selective Supplement IV (MS2042).

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°0 in sealable plastic bags for 2-5 day.

Further Reading

- 1. Bolton F.J. and Robertson L., 1982, J. Clin. Pathol., 35:462.
- 2. Vanderzant C. and Splittstoesser D. (Eds.), 1992, Compendium of Methods for the Microbiological Examination of Foods, 3rd ed., APHA, Washington, D.C.
- 3. Stern N.J., 1982, J. Food Safety, 4:169.

Disclaimer:

- User must ensure suitability of the product(s) in their application prior to use.
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