Technical Information

Campylo Thioglycollate MiVeg Medium Base

Product Code : VM1908

Application:- Campylo Thioglycollate MiVeg Medium Base is recommended for maintenance, transport and storage of cultures of *Campylobacter* species.

Composition

Ingredients	Gms / Litre
MiVeg hydrolysate	20.0
Sodium chloride	2.5
Dipotassium phosphate	1.5
Sodium thioglycollate	0.6
L-Cystine	0.4
Sodium sulphite	0.2
Agar	1.6
Final pH (at 25°C)	7.0±0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Campylo Thioglycollate MiVeg Medium Base is prepared by MiVeg hydrolysate inplace of enzymic, thus the medium becomes BSE/ TSE risks free. This medium is the modification of the conventional medium used for isolation of *Campylobacter* species. *Campylobacter jejuni* was isolated from the faeces of patients with diarrhoea and gastroenteritis using a filtration technique as reported by Dekeyser et al (1). They used a selective medium containing three antimicrobials. Skirrow also used a selective medium containing three antimicrobials (2). Later on, Blaser et al, isolated *Campylobacter jejuni* by direct inoculation of stool samples on an agar medium containing four antibiotics (3). They reported success by inoculating this medium with stool swabs containing the same four antibiotics (4). Blaser etal included the fifth antibiotic Cephalothin to inhibit nonpathogenic *Campylobacter fetus* species (5). This medium has been recommended as a holding medium when facilities of streaking and incubation are not readily available (5).

This medium is like the conventional medium contains necessary nutrients to promote growth of *Campylobacter* species. Multiplication of normal microflora in faecal specimens inhibited by the supplement MS2006 (Blaser and Wang) which consists of five antibiotics viz. Amphotericin B, Cephalothin, Polymyxin B, Trimethoprim and Vancomycin, thus facilitating isolation of *Campylobacter jejuni*. Cephalothin may not always inhibit *Campylobacter fetus* species and some strains may grow at 42°C. For confirmation *Campylobacter jejuni* further tests should be performed.

Methodology

Suspend 26.8 grams of powder media in 1000 ml distilled water. Mix thoroughly. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. To make the medium selective for *Campylobacter*, add reconstituted Campylobacter supplement I (Blaser Wang) (MS2006). Mix well before dispensing.

Quality Control

Physical Appearance

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

Gelling

Gelling

Highly viscous solution comparable to 0.16% Agar gel

Colour and Clarity of prepared medium

Light to medium amber coloured, slightly opalescent solution

Reaction

Reaction of 2.68 % w/v aqueous solution pH: 7.0 ±0.2 at 25°C

pH range

6.8-7.2

Cultural Response/Characteristics

Cultural characteristics observed after an incubation at 42°C for 18-24 hours with added Campylobacter Supplement I (Blaser Wang, MS2006) in an atmosphere of 5 - 15% O and 5 - 12% Carbon dioxide (CO_2).

Organisms (ATCC)	Inoculum (CFU)
Campylobacter coli (33559)	luxuriant
Campylobacter jejuni (33291)	luxuriant
Escherichia coli (25922)	none-poor
Helicobacter pylori (43504)	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: 2-8^0 in sealable plastic bags for 2-5 days.

Further Reading

1. Dekeyser, Gossuin-Detrain, Butzler and Sternan, 1972, J. Infect. Dis., 125:390.
2. Skirrow, 1977, Br. Med. J., 2:9.
3. Blaser, Cravens, Powers and Wang, 1978, Lancet, 2:979.
4. Blaser, et al, 1979, Ann. Intern. Med., 91:179.
5. Reller, Wang and Blaser, 1979, ASCP check sample, Microbiology No.MB-99. Commission of continuing education, ASCP, Chicago.

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