Technical Information

Campylobacter MiVeg Agar Base

Product Code : VM1994

Application:- Campylobacter MiVeg Agar Base is a selective media, used for isolation of *Campylobacter* species from faecal specimens, food and environmental specimens.

Composition

Ingredients	Gms / Litre
MiVeg peptone No. 3	15.0
MiVeg extract No. 2	2.5
Yeast extract	5.0
Sodium chloride	5.0
Agar	12.0
Final pH (at 25°C)	7.4 ±0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Campylobacter MiVeg Agar Base is prepared by using MiVeg peptone No.3 and MiVeg extract No.2 instead of Proteose peptone and Liver digest respectively which makes the medium free from BSE/TSE risks. This medium is the modification of medium described by Skirrow and Blaser et al. Skirrow described a selective medium for *Campylobacter* species, which consisted of Blood Agar Base No. 2, supplemented with horse blood and antibiotics (1). Blaser et al (2) reported use of Brucella Agarsupplemented with sheep blood and antibiotics forselective isolation of *Campylobacter fetus* subspecies *jejuni* from faecal specimens.

The antimicrobial agents described by Skirrow and Blaser et al markedly reduce the growth of normal enteric bacteria and improves growth and recovery of *Campylobacter fetus* subspecies *jejuni* from faecal specimens. Blaser-Wang Supplement contains Amphoteriein B which markedly or completely inhibits the growth of fungi and later Cophalothin is incorporated in the formula to improve inhibition of normal enteric flora (3). *Campylobacter fetus* subspecies *jejuni* appear nonhaemolytic, flat and gray with an irregular edge or raised and round with a mucoid appearance. Some strains may appear tan or slightly pink. On moist surfaces swarming & spreading may be observed.

Methodology

Suspend 19.75 grams of powder media in 500 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. Cool to 40-50°C and aseptically add 5-7% v/v sterile lysed horse blood or 10% sterile defibrinated sheep blood andCampylobacter Supplement I (Blaser-Wang) (MS2006) or Campylobacter Supplement III (Skirrow) (MS2008). Mix well before pouring into sterile petri plates.

Quality Control

Physical Appearance

Light 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 yields yellow coloured, clear gel without any precipitate. Addition of 5-7% v/v lysed blood forms reddish brown coloured opalescent gel in petri plates.

Reaction

Reaction of 3.95 % w/v aqueous solution pH: 7.4±0.2 at 25°C

pH range

7.2-7.6

Cultural Response/Characteristics

Cultural characteristics observed after an incubation at 35-37°C for 24-48 hours under reduced oxygen atmosphere.

Organisms (ATCC)	Inoculum (CFU)	Growth
Campylobacter fetus subsp. *jejuni*	good-luxuriant	good-luxuriant
Candida albicans (10231)	none - poor	moderate
Escherichia coli (25922)	none- poor	none- poor
Enterococcus faecalis (29212)	none- poor	none- poor

Key : * = after addition of Campylobacter supplement I (Blaser-Wang) (MS2006)
** = after addition of Campylobacter supplement II (Skirrow) (MS2008)

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. Skirrow M.D., 1977, Br. Med. J., 2:9.
2. Blaser M.J., Cravens B.W., Powers and Wang W.L., 1978, Lancet (ii):979.
3. Blaser M.J., Berkowitz V., LaForce F.M. et al, 1979, Ann. Intern. Med., 91:179.

Disclaimer :

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