

TM 1158 – CAMPYLOBACTER CEFEX AGAR BASE

INTENDED USE

For isolation and cultivation of *Campylobacter* species.

PRODUCT SUMMARY AND EXPLANATION

Campylobacter species were associated with variety of veterinary diseases and also has been characterized as bacterial agents of human foodborne gastroenteritis. The organisms may also be transmitted by contaminated food or water. *Campylobacter* Cefex Agar Base is used for isolation and cultivation of *Campylobacter* species. *Campylobacter* Agar with antimicrobics and 50 ml sheep blood is recommended as a selective medium for the primary isolation and cultivation of *Campylobacter* species. *Campylobacter* Cefex Agar Base is a highly nutritious base and the addition of horse blood supplements the medium with X-factor and other growth factor requirements.

The addition of antimicrobials to the medium is required to suppress the growth of normal flora. Cefoperazone is added to inhibit many gram-positive and gram-negative organisms (Aerobic and anaerobic). Cycloheximide is added to inhibit the growth of contaminating fungi. *Campylobacter* Cefex Agar Base can be used for direct inoculation or indirect inoculation. After inoculation, incubate the plates at 42°C for 48-72 hours in microaerophilic atmosphere. In addition, media may be set up in duplicate with the second set incubated at 35-37°C to allow for the growth of certain *Campylobacter* species. *Campylobacter jejuni* colony morphology may appear as small mucoid, grayish flat colonies with irregular edges and no hemolytic patterns after 24-48 hours. Colonies may also appear pink or yellowish gray with some colonies exhibiting a tailing effect along the streak line. They may also appear as round, convex, entire, glistening, 1-2 mm in diameter.

Cephalothin-sensitive *Campylobacter* species such as *C.fetus* and *C.upsaliensis* may not be recovered on *Campylobacter* Cefex Agar Base because it contains cefoperazone. These agents in selective media may inhibit some strains of desired species. Therefore, specimens cultured on selective media should also be cultured on non-selective media to obtain additional information and to ensure recovery of potential pathogens.

COMPOSITION

Ingredients	Gms / Ltr
Tryptone	15.000
Peptone	10.000
Sodium chloride	5.000
Yeast extract	2.000
Dextrose (Glucose)	1.000
Ferrous sulphate	0.500
Sodium pyruvate	0.500
Sodium bisulphite	0.350
Agar	15.000

PRINCIPLE

Tryptone, Peptone and yeast extract provide nitrogenous compounds, carbon, sulphur, vitamins and trace ingredients. Glucose is utilized as an energy source. Sheep blood supplies the X-factor (heme) and other growth requirements. Incorporation of antibiotics suppresses the growth of the normal microbial flora in the specimens thereby facilitating isolation of *Campylobacter* species.

INSTRUCTION FOR USE



- Dissolve 49.35 grams in 950 ml purified / distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. Cool to 45-50°C.
- Aseptically add 10% defibrinated sheep blood or 5-7% v/v laked horse blood and rehydrated contents of one vial of Park and Sanders Selective Supplement II.
- Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium	: Basal medium: Yellow coloured clear to slightly opalescent gel. After addition of blood: Cherry red coloured opaque gel forms in Petri plates
pH (at 25°C)	: 7.0±0.2

INTERPRETATION

Cultural characteristics observed after incubation with added 10%v/v defibrinated sheep blood or 5-7%v/v laked horse blood and Park and Sanders Selective Supplement B.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
<i>Campylobacter jejuni</i>	29428	50-100	Good-luxuriant	≥50%	35-37°C	18-24 Hours
<i>Escherichia coli</i>	25922	50-100	None-poor	0-10%	35-37°C	18-24 Hours
<i>Enterococcus faecalis</i>	29212	50-100	None-poor	0-10%	35-37°C	18-24 Hours

PACKAGING:

In pack size of 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.







DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

1. Atlas R. M., 1993, Handbook of Microbiological Media, Parks L.C. (Ed.), CRC press, Boca Raton.
2. Forbes B. A. et al, 2002, Bailey and Scotts Diagnostic Microbiology, 11th Ed., Mosby Company, St. Louis, MO.
3. Murray P. R., Baron J. H., Pfaller M. A., Jorgensen J. H. and Tenover F. C., (Ed.), 2003, Manual of Clinical Microbiology, 8th Ed., American Society for Microbiology, Washington, D.C.



GMP Good Manufacturing Practices Certified	IVD For In Vitro Diagnostic Use	QTY. Quantity	LOT/ B. NO. Lot / Batch Number	REF Catalogue Number	 Manufacturer
 Temperature Unit	EC REP Authorized Representative <small>MedNet GmbH Buckstrasse 10, 48163 Münster, Germany</small>	 European Conformity	 QR Code	 Consults Instructions for Use	 Best Before

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**
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