TM 1335 – CAMPYLOBACTER CEFEX BROTH BASE

INTENDED USE

For selective isolation of *Campylobacter* species from faecal samples, foods and environment.

PRODUCT SUMMARY AND EXPLANATION

Campylobacter cefex broth base is used for isolation and cultivation of Campylobacter species. Campylobacter is a Gram negative, motile, microaerophilic and spiral group of bacteria. The bacterium has a characteristic corkscrew (spiral) appearance and hence it is named as Campylobacter (twisted bacteria). Campylobacter jejuni is recognized as a most prevalent food borne pathogen. The infection occurs due to the consumption of undercooked or contaminated food products, especially poultry products. Campylobacter fetus can cause spontaneous abortions in cattle and sheep and also act as opportunistic pathogen in humans.

COMPOSITION

Ingredients	Gms / Ltr
Casein enzymatic hydrolysate	15.000
Peptic digest of animal tissue	10.000
Sodium chloride	5.000
Yeast extract	2.000
Glucose	1.000
Ferrous sulphate	0.500
Sodium pyruvate	0.500
Sodium bisulphite	0.350

PRINCIPLE

Casein hydrolysate, peptic digest of animal tissue 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.The addition of antimicrobials to the medium is required to suppress the growth of normal flora. Cefoperazone is added to inhibit many grampositive 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.

INSTRUCTION FOR USE

- Dissolve 34.35 grams in 950 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. Cool to 50°C.
- Aseptically add 50 ml 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 : 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 under microaerobic atmosphere with added 10%v/v defibrinated sheep blood or 5-7%v/v laked horse blood and Park and Sanders Selective Supplement II.

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

PACKAGING:

In pack size of 500 gm bottles.

STORAGE

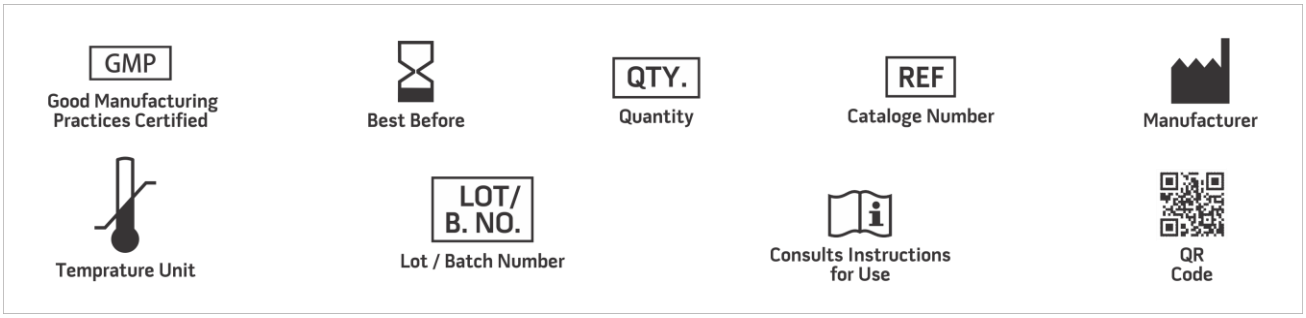
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided 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.
3. Murray P. R., Baron J. H., Pfaller M. A., Jorgensen J. H. and Yolken R. H., (Ed.), 2003, Manual of Clinical Microbiology, 8th Ed., American Society for Microbiology, Washington, D.C.



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

***For Lab Use Only**

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