TM 2112 – CHROMOGENIC CAMPYLOBACTER AGAR BASE

INTENDED USE

For selective isolation and presumptive identification of *Campylobacter* species.

PRODUCT SUMMARY AND EXPLANATION

Campylobacter species are ubiquitous in the environment inhabiting a wide variety of ecological niches. Infection with a *Campylobacter* species is one of the most common causes of human bacterial gastroenteritis. Most species are found in animals (cattle, swine) and cause infertility and abortion. *Campylobacter jejuni* and *Campylobacter coli* both lead to severe diarrhea when ingested. ISO 10272-1:2006, as well as the U.S. Food and Drug Administration BAM recommend the use of modified charcoal cefoperazone deoxycholate agar (mCCDA) for the detection of *Campylobacter* species as the as a primary selective medium. But colourless colonies of *Campylobacter* are often difficult to detect on black colored medium. Therefore a chromogenic medium based on conventional mCCDA, was developed for the detection of *Campylobacter* species.

COMPOSITION

Ingredients	Gms / Ltr
Peptone mix	25.000
Chromogenic mix	10.250
Growth factor	4.280
Agar	15.000
Sodium chloride	5.000

PRINCIPLE

Chromogenic Campylobacter Agar Base is well supplemented to support luxuriant growth of *Campylobacter* species. Sodium chloride maintains the osmotic equilibrium of the medium. Carbonaceous, nitrogenous compounds, long chain amino acids, vitamins and other essential growth factors provided by peptone mix. Fermentable sugar is sucrose. The antibiotic supplement Campylobacter selective supplement, Karmali, Modified reduce the growth of normal enteric bacteria while enhancing the growth and recovery of *C. jejuni* from faecal specimens. *Campylobacter* species appear mauve to purple coloured colonies.

INSTRUCTION FOR USE

- Dissolve 29.77 grams in 500 ml distilled water.
- Heat to boiling with frequent agitation to dissolve the medium completely, do not autoclave or overheat.
- Cool to 45-50°C and aseptically add rehydrated contents of 1 vial of Campylobacter Selective Supplement (Karmali), Modified (TS 145).
- 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 in Petri plates

pH (at 25°C) : 7.4 ± 0.2

INTERPRETATION

Cultural characteristics observed under micro-aerobic atmosphere with added Campylobacter Selective Supplement, Karmali, Modified after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Color of the colony	Incubation Temperature	Incubation Period
Escherichia coli	25922	50-100	None - poor	<=10%	-	35-37°C	24-48 Hours
Campylobacter jejuni	33291	50-100	Good - luxuriant	>= 50%	Reddish - purple	35-37°C	24-48 Hours
Campylobacter coli	33559	50-100	Good - luxuriant	>= 50%	Reddish - purple	35-37°C	24-48 Hours
Staphylococcus aureus	25923	50-100	None - poor	<=10%	-	35-37°C	24-48 Hours

PACKAGING:

In pack size of 100 gm and 500gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 2-8°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. Koneman E. W, Allen S. D., Janda W. M, Schreckenberger P. C., Winn W. C. Jr, 1992, Colour Atlas and Textbook of Clinical Microbiology, 4th Edition, J. B. Lippincott Company.
2. Manning H., Duim B., Wassenaar T., Wagenaar A., Ridley A., Newell D.G., 2001, Appl. Environ. Microbiol., 67:1185
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4. International Organization for Standardization. 2006. ISO 10272-1, Microbiology of food and animal feeding stuffshorizontal method for detection and enumeration of Campylobacter spp. -Part 1; Detection method. ISO, Geneva.
5. U.S. Food and Drug Administration. 2015, Bacteriological analytical manual online. Available at: http://www.fda.gov/Food/FoodScienceResearch/LaboratoryMethods/ucm2006949.htm. Accessed 1 March 2015.
6. Bolton, F.J., D. N. Hutchinson, and D. Coates.1984, Blood-free selective medium for isolation of Campylobacter jejuni from faeces.J.Clin.Microbiol.19:169-171.

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

***For Lab Use Only**

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