

Product Data Sheet

KARMALI CAMPYLOBACTER AGAR BASE

Product No. GB-DCM-00257-1A

INTENDED USE

For selective isolation and cultivation of thermotolerant Campylobacter species from food and animal feeds.

PRODUCT SUMMARY

Campylobacter are carried in the intestinal tract of animals and therefore, contaminate foods of animal's origin. Campylobacter jejuni is recognized as a leading cause of acute bacterial gastroenteritis in humans, and eating foods of animal origin has been associated with many of these illnesses. Campylobacter jejuni and Campylobacter coli are the most common Campylobacter species associated with diarrheal illness and are clinically indistinguishable. Karmali Campylobacter Agar Base, recommended for the selective isolation and cultivation of Campylobacter species, is a modification of the original formulation of Karmali et al. Selectivity of the medium is achieved by the addition of selective supplement. Campylobacter Selective Supplement with Hemin (Karmali) or Campylobacter Selective Supplement with Hemin (Karmali), Modified has hemin, as part of the supplement whereas, while using Campylobacter Selective Supplement, Karmali or Campylobacter Selective Supplement (Karmali), Modified, hemin has to be added separately. Karmali Campylobacter Agar Base is also recommended by the ISO Committee.

Product Specifications

Ingredients	Gms / Ltr
Peptone, special	23.000
Corn starch	1.000
Sodium chloride	5.000
Charcoal	4.000
Agar	15.000



PRINCIPLE

Peptone special, cornstarch and hemin, serve as sources of essential nutrients required for bacterial metabolism. Presence of charcoal in the medium helps to neutralize the toxic metabolic products formed in the medium. Sodium pyruvate (present in Supplement) enhances, the aerotolerance of microaerophilic *Campylobacter* by quenching the toxic forms of oxygen. The antibiotics included in the selective supplement are Vancomycin, Amphotericin B, Cycloheximide and Cefoperazone. Vancomycin suppresses gram-positive organisms while Amphotericin B/ Cycloheximide inhibits the fungal flora. Cefoperazone has inhibitory action on gram-negative organisms other than *Campylobacter*. The inoculated plates are incubated in an atmosphere consisting of approximately 5-6% O₂, 10% CO₂ and 84-85% N₂ at 42°C.

INSTRUCTION FOR USE

- Dissolve 22.5 grams in 490 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 rehydrated contents of 1 vial of *Campylobacter* Selective Supplement w/ Hemin (Karmali) or *Campylobacter* Selective Supplement w/ Hemin (Karmali), Modified. • Alternatively, add aseptically rehydrated contents of one vial of *Campylobacter* Selective Supplement, Karmali or *Campylobacter* Selective Supplement (Karmali), Modified and 5 ml of Hemin solution (16 mg/5 ml).
- Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder: Grey to black homogeneous free flowing powder.

Appearance of prepared medium: Black coloured, opalescent gel forms in Petri plates.

pH (at 25°C) : 7.4 ± 0.2

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.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Campylobacter coli	33559	50-100	Good-Luxuriant	>=50%	42°C	42-48 Hours
Campylobacter jejuni	29428	50-100	Good-Luxuriant	>=50%	42°C	42-48 Hours
Escherichia coli	25922	50-100	None-poor	0-10%	42°C	42-48 Hours

DISPOSAL

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

This product is for research use only.