

## Campylobacter Agar Base (Preston)

Cat. 1131

Selective medium for *Campylobacter jejuni* and *C. coli*.

### Practical information

Applications	Categories
Selective enumeration	Campylobacter

Industry: Clinical / Food



### Principles and uses

*Campylobacter* Agar Base (Preston) is based on the formulation described by Bolton and Robertson, and designed for the isolation of *Campylobacter* species from human, animal, bird and environmental samples. The supplement is especially selective for *Campylobacter jejuni* and *C. coli*. The recovery of injured cells can be improved by pre-enrichment in broth medium, permitting sublethally injured organisms to repair lesions and to tolerate certain selective antibiotics.

*Campylobacter* spp. are of worldwide significance in human and animal disease, especially *C. jejuni*, considered one of the main causes of acute bacterial diarrhea in man.

Casein peptone and Soy peptone provide nitrogen, vitamins, minerals and amino acids essential for growth. Sodium chloride supplies essential electrolytes for transport and osmotic balance. Polymyxin B inhibits Gram-negative microorganisms. Cycloheximide inhibits yeasts. Rifampicin inhibits Gram-positive organisms. Trimethoprim exerts its antibacterial action through the selective inhibition of bacterial dihydrofolate reductase (DHFR), which is an essential enzyme in all living cells. Bacteriological agar is the solidifying agent.

### Formula in g/L

Bacteriological agar	12	Beef extract	10
Casein peptone	10	Sodium chloride	5

### Preparation

Suspend 18,5 grams of the medium in 475 ml of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Sterilize in autoclave at 121 °C for 15 minutes. Cool to 45 °C and aseptically add 5-7% of lysed horse blood and one vial of Preston *Campylobacter* Supplement (Cat. 6019), previously reconstituted with 5 ml of 1:1 solution of acetone/sterile distilled water. Homogenize gently and dispense into Petri dishes. Be careful to avoid bubble formation when adding the blood to the cooled medium, and rotate the flask or bottle slowly to create a homogeneous solution.

### Instructions for use

» For clinical diagnosis, the type of sample is fresh stool or rectal swabs from patients with possible *Campylobacter* infection.

- Inoculate on the surface making parallel striae with the handle or swab.
- Incubate at 42 °C for 24-48 hours.
- Reading and interpretation of the results.

» For other uses not covered by the CE marking:

Isolation of *Campylobacter* species from human, animal, bird and environmental samples.

- Inoculate the plates with the addition of Preston *Campylobacter* Supplement (Cat. 6019) .
- Incubate at 42 °C for 24-48 hours.
- Examine the plates and confirm the typical colonies as *Campylobacter jejuni* or *C. coli* by the standard method.
- The colonies first appear flat and grey with an irregular edge or raised and round.

### Quality control

Solubility	Appearance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25°C)
w/o rests	Fine powder	Beige	Yellowish white, cherry red opaque with blood.	7,5±0,2

## Microbiological test

Incubation conditions: (42 °C / 24-48 h).

Microorganisms	Specification
Escherichia coli ATCC 25922	Total inhibition
Campylobacter jejuni ATCC 29428	Good growth
Campylobacter coli ATCC 43478	Good growth

## Storage

Temp. Min.: 2 °C  
Temp. Max.: 25 °C

## Bibliography

Bolton F.J. Hutchinson D.N. y Cioeste D. (1984] clin. Microbiol. 19, 169-171.  
Bolton E.J. Robertson L. (1982] J. Clin Parth 35, 462-467.