Campylobacter/ Selective Supplement

356-4674
355-6641 / 355-4678
356-8618 / 356-6218

DEFINITION

Campylobacter jejuni has - in the last few years - been classed in the group of bacteria enteropathogenic for humans. It is far from unimportant since it comes second after *Salmonella*.

PRESENTATION

- **Columbia base /Agar**
  500 g **code 356-4674**
  5 kg **code 356-4678**

- **Sterile horse blood/Additive**
  5 ml x 1 vial **code 355-6641**

- **Nalidixic acid (30 µg)/Disks**
  50 disks x set of 4 cartridges
  code 356-8618

- **Cefalotin (30 µg)/Disks**
  50 disks x set of 4 cartridges
  code 356-6218

THEORETICAL FORMULA

- **Columbia base medium**

Special blend of peptones	23 g
Starch	1 g
Sodium chloride	5 g
Agar	10 g
Distilled water	1,000 ml

Final pH (25°C) = 7.3

- **Horse blood/Additive**
  Add 5-7% lysed horse blood to Columbia agar, melted and cooled to 44°C - 47°C.

- **Selective supplement (lyophilisate)**

Vancomycin	10 µg/ml
Polymyxine B	2.5 µg/ml
Trimethoprim	5 µg/ml
Amphotéricin B	2 µg/ml

STORAGE

- Dehydrated: +15°C-25°C tightly sealed bottled in a dry place.
- Cartridge of disk +2°C -8°C in a dry place.
- Other products: see corresponding Technical Sheets.
- Expiration date and batch number are shown on the package.

UTILISATION

Re-hydrate the selective supplement (all the lyophilisate) with 1 ml of sterile distilled water.
The concentration of volume obtained corresponds to the 60 ml presentation of Columbia agar.
The medium can be poured into Petri dishes in advance and kept at +4°C in conditions preventing any desiccation for a maximum of 8 days.

CULTURE CONDITIONS

Atmosphere required: 85% N_2, 10% CO_2 and 5% O_2

N.B.: Oxygen in atmospheric concentration (20%) is toxic for *C. jejuni*. Similarly, strict anaerobiosis is not conducive to growth of some species of *Campylobacter*.
An anaerobic jar, with a generator of H_2 and CO_2 may be used, on condition that the catalyzer usually located under the lid is removed.

Growth temperature: incubation either at 37°C, or preferably at 42°C-43°C, the latter temperature being conducive to growth of *C. jejuni*.
After 48 hours incubation, colonies appear smooth, thin, and tending towards confluence.

IDENTIFICATION

- by verifying: the arrow type mobility, like a *Vibrio*, as well as positive catalase and oxidase characters.
- by differentiating *C. jejuni* from the sub-species *intestinalis* by the tests in the following table (*see on page 2/2*)

QUALITY CONTROL OF MANUFACTURER

Every product manufactured and marketed by Bio-Rad is subject to a quality-assurance procedure at all stages, from the reception of raw materials to the marketing of the end-product.
Each batch of finished product undergoes quality control and is marketed only if it satisfies the acceptability criteria.

Documentation relative to the production and control of each batch is kept on file.

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IDENTIFICATION

Differentiating *C. jejuni* from the sub-species *intestinalis* by the tests in the following table:

	Culture at 25°C	Culture at 42°C	Nalidixic acid disk 30 µg	Cefalotin disk 30 µg	Hippurate Hydrolysis
C. jejuni	-	+	S	R	+
C. fetus subsp. intestinalis	+	-(*)	R	S	-
C. coli	-	+	S	R	-

(*) Rare strains grow as well at 42°C as at 25°C

BIBLIOGRAPHIE

• **SKIRROW, M.B. (1977):** *Campylobacter enteritis*: a “new disease” Brit, Med. J. **2**: 9-11.

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