

21378 *Campylobacter* Selective Agar (Base)

For the isolation of *Campylobacter* species from human and animal derived clinical material, and from contaminated food, water etc. according to Skirrow.

Composition:

Ingredients	Grams/Litre
Peptone-protein mixture	21.0
Electrolyte	5.0
Starch (soluble)	1.0
Agar	13.0
Final pH 7.3 +/- 0.2 at 25°C	

Store prepared media below 8°C, protected from direct light. Store dehydrated powder, in a dry place, in tightly-sealed containers at 2-25°C.

Directions:

Dissolve 40 g in 1 litre distilled water and autoclave at 121°C for 15 minutes. Cool to 45-50°C and add 50-70 ml defibrinated blood and 1 vial/l of Park and Sanders Selective Supplement I (Cat. No. 17191) and 1 vial/l of Park and Sanders Selective Supplement II (Cat. No. 17194) per 1 litre medium. Pour plates. The recommended incubation is 24-48 hours in an O₂-deficient, CO₂-enriched atmosphere which can be produced in an anaerobic jar.

Principle and Interpretation:

A nutritionally rich medium and an O₂ (~5%) deficient, CO₂(10%) and N₂(85%) enriched atmosphere gives the best conditions to *Campylobacter*s. The antibiotics which are added as a *Campylobacter* selective supplement largely inhibit the accompanying microbial flora. The *Campylobacter* species can be classified by the dependence of their growing temperatures. For example the possible incubation temperature of *C. fetus* ssp. *fetus* and of *C. fetus* ssp. *venerealis* is 25-37°C and of *C. jejuni/coli* it is 37-42°C.

Cultural characteristics after 24-48 hours.

Organisms (ATCC)	Incubation Temperature °C	Growth
<i>Campylobacter jejuni</i> (33560)	42	+++
<i>Campylobacter fetus</i> (27374)	35	+++
<i>Campylobacter coli</i> (43478)	42	+++
<i>Escherichia coli</i> (25922)	42	-
<i>Enterococcus faecalis</i> (19433)	42	-
<i>Proteus mirabilis</i> (29906)	42	-



References:

1. M.B. Skirrow, Campylobacter enteritis: a "new" disease, Brit. Med., 2, 9 (1977)
2. M.J. Stern, A.W. Kotula, Survival of Campylobacter jejuni inoculated into Ground Beef, Appl. Environ. Microbiol., 44, 1150 (1982)
3. M.J. Blaser, F.M. Laforce, N.A. Wilson, W.-LL Wang, Reservoirs for human campylobacteriosis, J. Infect. Diseases, 141, 665 (1980)
4. J.P. Butzler, M.S. Skirrow, Campylobacter enteritis., Clin. Gastroenterol., 8, 737 (1979)
5. F.M. Christopher, G.C. Smith, C. Vanderzant, Examination of poultry giblets, raw mild and meat for Campylobacter fetus susp. jejuni, Archiv Lebensmittelhyg., 33, 151 (1982)
6. G.A. Herbert D.G. Hollis, R.E. Weaver, M.A. Lambert, M.J. Blaser, C.W. Moss, 30 Years of Campylobacter: Biochemical characteristics a biotyping proposal for Campylobacter jejuni, J. Clin. Microbiol., 15, 1065 (1983)
7. D.A. Robinson, D.M. Jones, Milkborne Campylobacter infection, Brit. Med. J., 282, 1374 (1981)
8. M. Veron R. Chatelain, Taxonomic Study of the Genus Campylobacter Sebald and Véron and Designation of the Neotype Stain for the Type Species Campylobacter fetus (Smith and Taylor) Sebald and Véron, Int. J. Bacteriol., 23, 122 (1973)
9. H.E. Müller, Campylobacter fetus-infektionen - eine Übersicht, Hyg. + Med., 5, 26 (1980)
10. V.D. Bokkenheuser, N.J. Richardson, J.H. Bryner, D.J. Roux, A.B. Schutte, H.J. Koornhof, I. Freiman, E. Hartman, Detection of enteric campylobacteriosis in children, J. Clin. Microbiol., 9, 227 (1979)

Precautions and Disclaimer

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