

Campylobacter Blood Free Selective Medium

(Modified CCDA-Improved)

BC2112

A blood free Campylobacter medium which can be made selective for the growth of *C. jejuni*, *C. coli* and *C. laridis* by the addition of the selective supplement S2112 when incubated at 37°C. The supplement S2112 consists of cefoperazone and amphotericin and has been shown to give superior performance to the selective cocktails of Skirrow, Butzler and Blazer-Wang.

A membrane filtration method, omitting the antibiotic supplement, can be used to isolate antibiotic sensitive strains.

Formula grams per litre

| | |
|--------------------------|------|
| Peptone mixture | 25.0 |
| Bacteriological Charcoal | 4.0 |
| Sodium chloride | 3.0 |
| Sodium desoxycholate | 1.0 |
| Ferrous sulphate | 0.25 |
| Sodium pyruvate | 0.25 |
| Bacteriological Agar | 12.0 |

pH: 7.4 +/- 0.2

Appearance: Black agar.

Preparation

Suspend 45.5 grams of powder in 1 litre of deionised water. Allow to soak for 10 minutes, swirl to mix, then sterilise by autoclaving at 121°C for 15 minutes. Cool to 47°C then add 2 vials of S2112 or 1 vial of S2212 supplement, mix well and pour into petri dishes, ensuring that the charcoal is kept in suspension.

Quality Control Organisms - Suggestions

| | | |
|--------------------------------------|------------|--|
| <i>C. jejuni</i> | NCTC 11322 | |
| <i>E. coli</i> (inhibition) | ATCC 11775 | |
| <i>Candida albicans</i> (inhibition) | ATCC 10231 | |

Storage of Prepared Medium

Plates should be stored at 4-8°C in the dark. Plates should be used within 1 week.

Directions for use

Inoculate *C. jejuni*, *C. coli*, *C. laridis* by surface streaking to single colonies.

C. cinaedi, *C. fennelliae* use the membrane filtration method of Goosens *et al.*

Incubate 37°C for 48 hours in an atmosphere of 5% oxygen, 10% carbon dioxide and 85% nitrogen. *C. cinaedi* and *C. fennelliae* require up to 7 days.

Growth characteristics

| Organism | Colony size (mm) | Shape & surface | Colour | Other |
|---------------------------------------------------------------------------|---------------------|--------------------|----------------|-------------------------------------|
| <i>C. jejuni</i> | 2.0-3.0 | F.E.G. | Grey/ White | Efflorescent (spreading moist) |
| <i>C. coli</i> | 1.0-2.5 | CV.E.G. | Creamy Grey | Moist |
| <i>C. laridis</i> | 1.5-3.0 | F.E.G. | Grey | (C.V. moist) |
| <i>C. cinaedi</i> | 2.0-3.0 | F.E.G. | Pale Grey | requires 7 days in absence of S2112 |
| <i>C. fennelliae</i> | 2.0-3.0 | F.E.G. | Pale Grey | requires 7 days in absence of S2112 |
| Other <i>Enterobacteriaceae</i> – No growth if sensitive to cefoperazone. | | | | |

References

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