



## ***Campylobacter Blood Free Selective Medium***

***(Modified CCDA-Improved)***

### **LAB 112**

#### **Description**

A blood free medium which will support the growth of most enteric campylobacters. The selective cocktail X112 (X212) makes the medium selective for *C. jejuni*, *C. coli* and *C. laridis* when incubated at 37°C. With this product incubation at 42°C is no longer necessary and higher recovery rates have been reported at 37°C than at 42°C. The supplement X112 (X212) consists of cefoperazone and amphotericin and is superior to the selective cocktails of Skirrow, Butzler and Blazer-Wang all of which contain antibiotics shown to be inhibitors to *C. coli*. The colonial morphologies of *Campylobacter* spp. on this medium are distinctive.

Formula	g/litre
Peptone blend	25.0
Bacteriological Charcoal	4.0
Sodium chloride	3.0
Sodium desoxycholate	1.0
Ferrous sulphate	0.25
Sodium pyruvate	0.25
Agar No. 2	12.0

#### **Method for reconstitution**

Weigh 45.5 grams of powder, disperse in 1 litre of deionised water and 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 X112 supplement, mix well and pour into Petri dishes. Continuously mix whilst pouring to prevent the charcoal settling.

**Appearance:** Black agar.

**pH:** 7.4 ± 0.2

Minimum Q.C. organisms:

*C. jejuni*

*E. coli* (inhibition) NCIMB 50034

*Candida albicans* (inhibition) NCIMB 50010

**Storage of Prepared Medium:** Plates – up to 7 days at 2-8°C in the dark.

**Inoculation:** *C. jejuni*, *C. coli*, *C. laridis* surface streaking to single colonies.

**Incubation:** 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 X112
<i>C. fennelliae</i>	2.0-3.0	F.E.G.	Pale Grey	Requires 7 days in absence of X112
Other <i>Enterobacteriaceae</i> – No growth if sensitive to cefoperazone.				

#### **References**

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