

CLOSTRIDIUM DIFFICILE SELECTIVE MEDIUM

Ready to use plates
for the isolation of *Clostridium difficile*.

Typical formula (g/l)

| | |
|--------------------------------|--------|
| Peptocomplex | 40.0 |
| Disodium Hydrogen Phosphate | 5.0 |
| Potassium Dihydrogen Phosphate | 1.0 |
| Magnesium Sulphate | 0.1 |
| Sodium Chloride | 2.0 |
| Fructose | 6.0 |
| Agar | 15 |
| D-Cycloserine | 500 mg |
| Cefoxitin | 16 mg |
| Defibrinated Horse Blood | 50 ml |

Final pH 7.4 ± 0.2

Description

Clostridium difficile was first isolated from meconium and infant faeces in 1935 by Hall and O'Toole but only recently has been seen a clear correlation between the cytotoxin produced by *Clostridium difficile* and the illness characterised by pseudomembranous colitis with inflammatory plaques, serious diarrhoea, dehydration, fever and leucocytosis. The most suitable medium for the selective isolation of *Clostridium difficile* is that proposed by George et al. in 1978. Biolife's medium is a slightly modified version of the original formula. It contains fructose, cycloserine, cefoxitin and defibrinated horse blood as a substitute for the egg yolk emulsion, used by George et al. Cycloserine and cefoxitin inhibit enterobacteria, faecal streptococci, anaerobic non spore-forming Gram-negative bacilli and *Clostridium* spp. except for *Clostridium difficile*.

Technique

Streak the specimen directly onto the agar surface, to obtain well isolated colonies.

Incubate at 37°C for 48 hours in anaerobic conditions.

After 48 hours *Clostridium difficile* colonies are visible with the following characteristics: circular, raised, opaque grey, sometimes with irregular borders, 4-6 mm in diameter.

Storage

Store at 2-8° - When stored as directed the plates remain stable until the expiry date shown on the label. Do not use beyond stated expiry date.

References

- Bartlett, J.G. et al. (1978) N. Eng. J. Med., **298**, 531.
- Boriello S.P. et al. (1981) J. Antimicrob. Chemother. **7** Supp. A. 53-62.
- George R.H. et al. (1976) J. Clin. Microbiol. **6**, 214-219.
- George, R.H. et al. (1978) Brt. Med. J., **i**, 695.
- Hall and E. O'Toole (1935) Am. J. Dis. Child. **49**, 390.
- Larson, H.E. et al. (1978) Lancet, **i**, 1063-1066

Packaging

541308

C. Difficile Selective Medium

20 ready to use plates