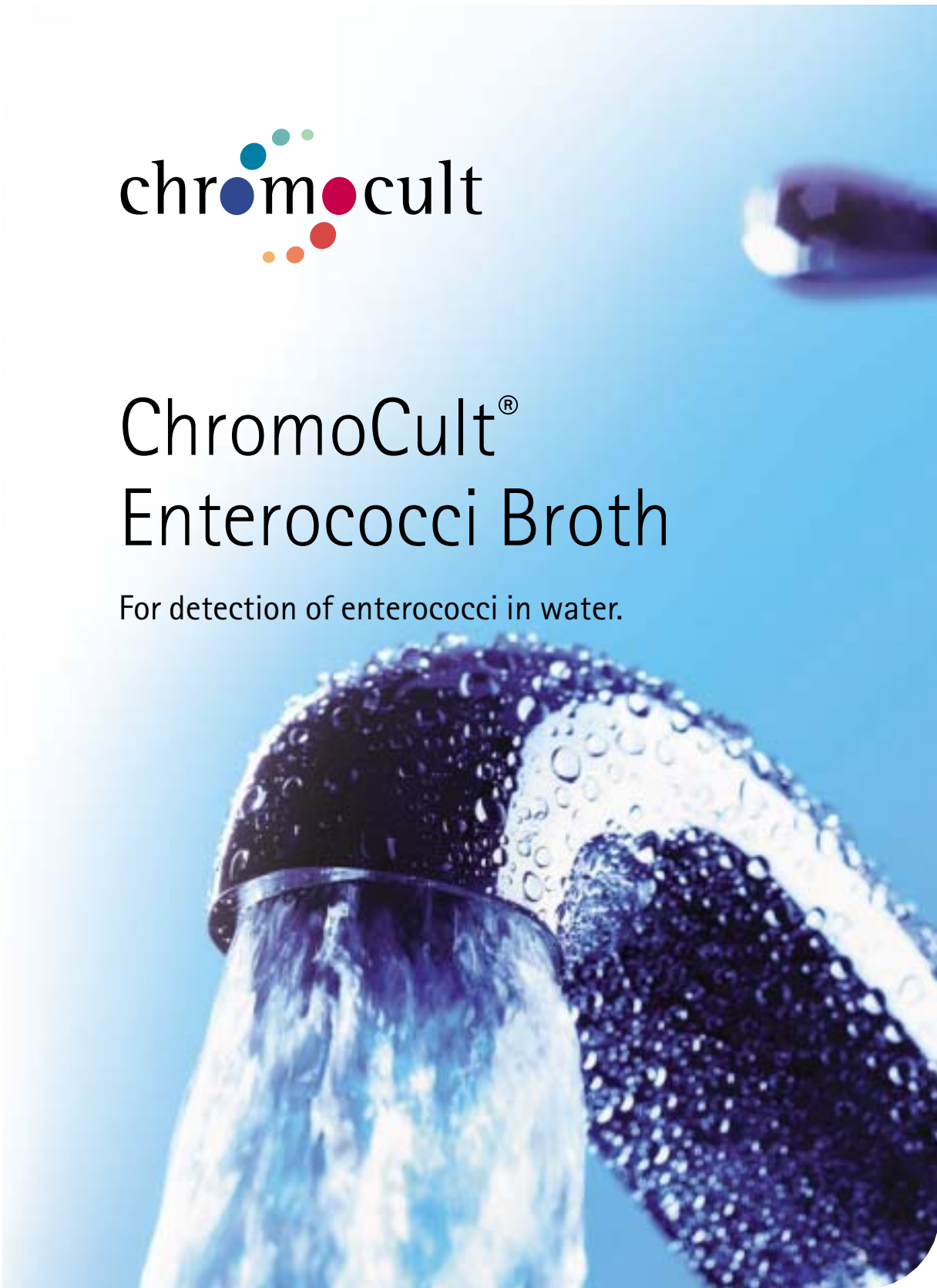




ChromoCult[®] Enterococci Broth

For detection of enterococci in water.



ChromoCult[®] Enterococci Broth



Cat.No 1.10294.0500 (500 g)

is a medium for the determination of enterococci in the bacteriological water examination.

Mode of action

The presence of enterococci (as well as the less frequent D-streptococci) account for most of the faecal streptococci and serves as an indicator for faecal contamination. This is in some respects, more specific than the presence of coliforms which may originate from non-faecal sources, whereas enterococci can only originate from faeces of human or animal origin.

The concentration of sodium azide present in this medium largely inhibits the growth of the accompanying, and especially the Gram-negative, microbial flora without affecting the enterococci.

The substrate X-GLU (5-bromo-4-chloro-3-indolyl- β -D-glucopyranoside) is cleaved, stimulated by carefully selected peptones, by the enzyme β -D-glucosidase which is characteristic for enterococci. This results in an intensive blue-green colour of the broth. At the same time sodium azide prevents a false positive result by most other β -D-glucosidase positive bacteria. Therefore, the colour-change of the broth largely confirms the presence of enterococci and D-streptococci in water.

Typical composition (g/litre)

Peptones 8,6; sodium chloride 6,4;
sodium azide 0,6; 5-bromo-4-chloro-3-indolyl- β -D-glucopyranoside (X-GLU) 0,04; Tween[®]80 2,2.

Preparation

Dissolve 18 g (single-strength) or 36 g (double-strength) in 1 litre demin. water, dispense into suitable vessels, autoclave (15 min. at 121 °C).

pH: 7.5 \pm 0.2 at 25 °C.

The prepared broth is clear and yellowish

Experimental procedure

Small sample volumes (up to 1 ml) can be added to the single-strength broth. Larger volumes (10 ml or more) should be diluted with the aliquote volume of double-strength broth to give the normal concentration.

Incubation: 24 \pm 4 hours at 36 °C or 44 °C. If there is no colour change or visible growth continue the incubation up to 44 \pm 4 hours.

Evaluation

A strong blue-green colour of the broth indicates the presence of enterococci and D-streptococci. The observed turbidity from growth may be very weak.



No growth



Enterococcus faecalis



Colour makes the difference.

Quality control

Test strains	Growth	Colour change to blue-green
Enterococcus faecalis ATCC 11700	fair to very good	+
Enterococcus faecalis ATCC 19433	fair to very good	+
Enterococcus faecium ATCC 6057	fair to very good	+
Streptococcus bovis ATCC 33317	fair to very good	+
Aeromonas hydrophila ATCC 7966	none to poor	-
Escherichia coli ATCC 25922	none to poor	-
Pseudomonas aeruginosa ATCC 27853	none to poor	-

Literature

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Poster Präsentation

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