chromocult

ChromoCult® Enterococci Agar

For detection of enterococci in water, foodstuffs and other materials.

MERCK

ChromoCult® Enterococci Agar

Ord. No. 1.00950.0500 (500 g)

Selective culture medium for the isolation, differentiation and enumeration of enterococci in water, foodstuffs and other materials. The medium contains specific chromogenic substrates – Enterococci grow as red colonies and are easily differentiated from other colony types.

Validated acc. to ISO 17994 : 2004 and approved by German EPA as alternativ method.

Mode of action

The presence of enterococci, especially E.faecalis, E.faecium, E.durans und E.hirae serves as an indicator for faecal contamination.
Growth of enterococci is stimulated by carefully selected peptones as well as phosphate and the addition of Tween® 80. Enterococci cleave the unique chromogenic substrates in the medium resulting in red colonies allowing a simple detection. Sodium azide and ox bile inhibit most accompanying microbial flora. Non-enterococci produce colourless, blue/violet or turquoise colonies. These colonies are easily distinguished from the red coloured colonies enterococci produce.

Typical composition (g/Litre)

Peptones 10.0; sodium chloride 5.0; sodium azide 0.2; dipotassium hydrogenphosphate 3.4; potassium dihydrogenphosphate 1.6; ox bile 0.5; Tween® 80 1.0; chromogenic-mixture 0.25; Agar-agar 11.0

Preparation

Suspend 33.0 g in 1 litre of demin. water by heating in a boiling water bath or in a flowing stream of steam. Stir the contents to assist dissolution (approx. 45 minutes), let the mediumcool to 45-50 °C. Pour into plates.
Do not autoclave! Do not overheat!
pH: 7.0 ±0.2 at 25 °C.
The plates are clear and slightly yellow. If stored at (+4 ±2 °C) and protected from light the plates are stabile for 2 weeks.

Experimental procedure

Inoculate the medium by the pour-plate method or by spreading the sample material on the surface of the plates. In addition the membrane-filter technique can also be used. The type of membrane filter affects the performance of the medium (growth and colouration of colonies). Best results are obtained using membrane filters of cellulose-mixed-ester material, e.g. Pall GN 6 (OSSMER, 1999)
Incubation: 24 ±4 hours at 35–37 °C.
Incubate for up to 44 ±4 hours to confirm a negative result.

Evaluation

Enterococci: red colonies with a diameter of 0.5 bis 2 mm.
Non-Enterococci: colourless (e.g. Aerococcus viridans ATCC 29503), blue/violet (e.g. Aerococcus viridans ATCC 10400), turquoise (e.g. Streptococcus equi ATCC 33398).

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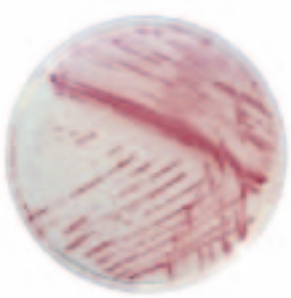
Colour makes the difference.

Quality control

Test strains	Inoculum (cfu/ml)	Growth	Colony colour
Enterococcus faecalis ATCC 19433	30 – 300	good	red
Enterococcus faecium ATCC 882	30 – 300	good	red
Enterococcus durans ATCC 6056	30 – 300	good	red
Enterococcus hirae ATCC 8043	30 – 300	good	red
Aerococcus viridans ATCC 10400	1000 – 2000	fair/none	blue/violet
Bacillus cereus ATCC 11778	1000 – 2000	-	-
Escherichia coli ATCC 11775	-	-	-
Pseudomonas aeruginosa ATCC 27853	-	-	-

Aerococcus viridans

Enterococci



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