52441 Enterococci *ChromoSelect* Broth

Enterococci *ChromoSelect* Broth is recommended for identification and differentiation of Enterococci from water samples.

Composition:

Ingredients	Grams/Litre
Peptone, special	10.0
Sodium chloride	5.0
Sodium azide	0.3
Chromogenic mixture (X-Glu)	0.04
Polysorbate 80	2.0
Sodium hydrogen phosphate	1.25
Final pH (at 25 °C) 7.5 +/- 0.2	

Store prepared media below 4 °C, protected from direct light. Store dehydrated powder in a dry place in tightly-sealed containers at 4 °C.

Directions:
Suspend 18.6 g (single strength) or 37.2 g (double strength) in 1000 ml distilled water. Boil to dissolve the medium completely. Dispense as desired and sterilize by autoclaving at 1 bar pressure (121°C) for 15 minutes.

Principle and Interpretation:
Enterococci *ChromoSelect* Broth is formulated on the basis of work carried out by Althous et al. [1], Amoras [2], Litsky et al [3], Manafi and Sommer [4] and Snyder and Lichtstein [5]. Enterococci *ChromoSelect* Broth is recommended for rapid detection of Enterococci from water samples. The presence of *Enterococcus* group, which is a subgroup of fecal Streptococci, serves as a valuable bacterial indicator for determining the extent of faecal contamination [1, 6] and it is more specific than the detection of coliforms which may originate from non-faecal sources.

This medium contains special peptone provides nitrogenous compounds and other essential nutrients. Sodium chloride maintains the osmotic balance of the medium. The sodium hydrogen phosphate is the buffering agent. Sodium azide inhibits the accompanying microflora, especially the gram-negative organisms. Polysorbate 80 acts as a source of fatty acids. The enzyme β-D-glucosidase produced by Enterococci cleaves the chromogenic substrate (X-Glu), resulting in an intensive color change in the broth from light yellow to blue.

Cultural characteristics after 24-48 hours at 37°C.

Organisms (ATCC)	Recovery	Color of medium
Enterococcus faecalis (29212)	+++	blue
Escherichia coli (25922)	-	light yellow
Staphylococcus aureus (25923)	-	light yellow
Pseudomonas aeruginosa (27853)	-	light yellow

References:
1. H. Athouse, W. Dott, G. Havemeister, H.E. Muller, C. Sacre, Zbl. Bakt. Hyg. I. Abt. Orig. A., 252, 154-165 (1982)
2. I. Amoras, Poster presentation congress of Spanish Society of Microbiology, Madrid (1995)
3. W. Litsky, W.L. Mallman, C.W. Fifield, Amer. J. Pbl.. Hlth., 43, 873-879 (1953)
4. M. Manafi, R. Sommer, Wat. Sci. Tech., 27, 271-274 (1993)
5. M.L. Snyder, H.C. Lichtstein, J. Infect. Dis. 67, 113-115 (1940)
6. Standard Methods for the Examination of Water and Wastewater, 20th Edition, Edited by L.S. Clesceri, A.E. Greenberg and A.D. Eaton Published by APHA, AWWA and WEF (1998)

Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.