

## 51759 Rapid Enterococi *ChromoSelect* Agar (Enterococi Rapid *ChromoSelect* Agar)

Rapid Enterococci *ChromoSelect* Agar is used for rapid and easy identification and differentiation of enterococci from water samples. It contains chromogenic substrate, which aids in the detection 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)	0.06
Polysorbate 80	2.0
Disodium hydrogen phosphate	1.25
Agar	15.0
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 33.6 g in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 1 bar pressure (121 °C) for 15 minutes. Cool to 50 °C and pour into sterile petri plates.

### Principle and Interpretation:

The Rapid Enterococci *ChromoSelect* Agar allows rapid identification and differentiation of Enterococci from water samples. This media 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]. The *Enterococcus* group, which is a subgroup of the faecal 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.

The peptone special provides nitrogenous compounds and sodium chloride provides the osmotic balance for rapid growth of Enterococci. The disodium 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  $\beta$ -D-glucosidase present in Enterococci cleaves the chromogenic substrate (X-Glu), resulting in blue green color of the colonies.

Cultural characteristics after 18-24 hours at 35°C.

Organisms (ATCC)	Growth	Color of colony
<i>Enterococcus faecalis</i> (29212)	+++	blue green
<i>Staphylococcus aureus</i> (25923)	+++	colorless
<i>Escherichia coli</i> (25922)	-/+	-
<i>Pseudomonas aeruginosa</i> (27853)	-/+	-



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## References:

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2. I. Amoras, Poster presentation congress of Spanish Society of Microbiology, Madrid (1995)
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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, 20<sup>th</sup> 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.

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