

Membrane-filter Enterococcus Selective Agar Base acc. to SLANETZ and BARTLEY

For the enumeration of enterococci in water and other liquids by the membrane filtration technique according to SLANETZ und BARTLEY (1957).

Mode of Action

The growth of the entire accompanying Gram-negative microbial flora is inhibited by sodium azide. Enterococci reduce TTC to give a red formazan, their colonies are thus red in colour. According to LACHICA and HARTMAN (1968), the selectivity for enterococci can be improved by adding carbonate and Tween80®.

Typical Composition (g/litre)

Tryptose 20.0; yeast extract 5.0; D(+)-glucose 2.0; di-potassium hydrogen phosphate 4.0; sodium azide 0.4; agar-agar 10.0.

Preparation

Suspend 41.5 g/litre, sterilize by heating for 20 minutes in a current of steam (e.g. autoclave without excess pressure). Afterwards cool rapidly!

■ Do not autoclave.

Add 10 ml of a filtersterilized 1% 2,3,5-triphenyltetrazolium chloride solution/litre to the base medium at a temperature of approximately 50 °C. Pour plates.

pH: 7.2 ± 0.2 at 25 °C.

The plates are clear and yellowish-brown.

Experimental Procedure and Evaluation

Place the inoculated membrane filters on the surface of the plates.

Incubation: up to 48 hours at 35 °C aerobically.

Pink to brown colonies with a diameter of 0.5 to 2 mm are usually enterococci.

Literature

LACHICA, R.V.F., a. HARTMAN, P.A.: Two improved media for isolating and enumerating enterococci in certain frozen foods. – *J. Appl. Bact.*, **31**: 151-156 (1968).

SLANETZ, L.W., a. BARTLEY, C.H.: Numbers of enterococci in water, sewage, and faeces determined by the membrane filter technique with an improved medium – *J. Bact.*, **74**: 591-595 (1957).

Ordering Information

Product	Merck Cat. No.	Pack size
Membrane-filter Enterococcus Selective Agar Base acc. to SLANETZ and BARTLEY	1.05289.0500	500 g
2,3,5-Triphenyltetrazolium chloride	1.08380.0010	10 g

Quality control

Test strains	Growth	Red colonies
<i>Streptococcus pyogenes</i> ATCC 12344	poor / fair	-
<i>Streptococcus agalactiae</i> ATCC 13813	poor / fair	-
<i>Enterococcus faecalis</i> ATCC 11700	≥ 50 %	+
<i>Enterococcus faecalis</i> ATCC 19433	≥ 50 %	+
<i>Enterococcus hirae</i> ATCC 8043	≥ 50 %	+ (poor)
<i>Staphylococcus aureus</i> ATCC 25923	none	
<i>Escherichia coli</i> ATCC 25922	none	
<i>Pseudomonas aeruginosa</i> ATCC 27853	none	