Technical Data Sheet

GranuCult® SLANETZ and BARTLEY Agar incl. TTC

acc. ISO 7899-2

1052620500

For the enumeration of enterococci in water and other liquids by the membrane filtration technique.

This culture medium complies with the specifications given by EN ISO 7899-2 and APHA (mEnterococcus agar).

SLANETZ and BARTLEY agar is also called mEnteroccous agar.

Mode of Action

The growth of the entire accompanying Gram-negative microbial flora is inhibited by sodium azide. Enterococci reduce 2,3,5-Triphenyl tetrazolium chloride (TTC) to give a red formazan inside the bacterial cell, their colonies are thus red. Nitrogen, minerals, and amino acids are provided by the tryptose whilst yeast extract supplies vitamins. Glucose acts as the carbon source, dipotassium phosphate buffers the medium, and agar-agar is the solidifying agent.

Typical Composition

Specified by ISO 7899-2 and APHA		**GranuCult® SLANETZ and BARTLEY agar incl. TTC acc. ISO 7899-2**	
Tryptose	20 g/L	Tryptose	20 g/L
Yeast Extract	5 g/L	Yeast Extract	5 g/L
Glucose	2 g/L	D(+)glucose	2 g/L
K_2HPO_4	4 g/L	K_2HPO_4	4 g/L
NaN_3	0.4 g/L	NaN_3	0.4 g/L
2,3,5-Triphenyl Tetrazolium chloride	0.1 g/L	2,3,5-Triphenyl Tetrazolium chloride	0.1 g/L
Agar	8-18 g/L	Agar-Agar*	10 g/L
Water	1000 mL/L	Water	n/a
pH at 25 °C	7.2 ± 0.1	pH at 25 °C	7.2 ± 0.1

*Agar-agar is equivalent to other different terms of agar.

Preparation

Dissolve 41.5 g in 1 L of purified water. Heat in boiling water and agitate frequently until completely dissolved. Sterilize by further heat for 20 minutes in the boiling water bath.

Do not autoclave. Cool rapidly and pour to plates.

The appearance of the medium is clear to turbid and red.

Experimental Procedure and Evaluation

Depends on the purpose for which the medium is used.

Membrane filtration of water samples: Place the inoculated membrane filters on the surface of the plates. Incubate the inoculated plates under aerobic conditions. e.g. acc. To EN ISO 7899-2 at 34-38 °C for 40-48 hours.

Typical colonies show a red, maroon, or pink color, either in the center or throughout the colony.

Confirm the colonies according to the appropriate method.

Storage

Store at 15 °C to 25 °C, dry and tightly closed. Do not use clumped or discolored medium. Protect from UV light (including sunlight). For *in vitro* use only.

According to EN ISO 7899-2, self-prepared plates can be stored at 2 °C to 8 °C in the dark and protected against evaporation for up to two weeks.

Quality Control

Function	Control strains	Incubation	Reference medium	Method of control	Expected results
Productivity	*Enterococcus faecalis* ATCC® 19433	40-48 hours at 34-38 °C	Tryptic Soy Agar (TSA)	Quantitative with Membrane filtration	Recovery ≥ 50 %, red-maroon-pink colonies
	Enterococcus faecalis ATCC® 29212				
	Enterococcus faecalis DSM 24916				
	Enterococcus faecium ATCC® 6057				
	Enterococcus faecium NCTC 13169				
Selectivity	*Escherichia coli* ATCC® 8739	40-48 hours at 34-38 °C	Tryptic Soy Agar (TSA)	Qualitative	Total inhibition
	Escherichia coli ATCC® 25922				
	Staphylococcus aureus ATCC® 6538				
	Staphylococcus aureus ATCC® 25923				

Please refer to the actual batch-related Certificate of Analysis.
A recovery rate of 50 % is equivalent to a productivity value of 0.5.

Enterococcus faecalis ATCC® 11700

Literature

APHA (2012): Standard Methods for the Examination of Water. 22nd ed. American Public Health Association, American Water Works Association, Water Environment Federation, Washington, D.C.

ISO International Standardisation Organisation. Water quality - Detection and enumeration of intestinal enterococci - Part 2: Membrane filtration method. EN ISO 7899-1:2000.

ISO International Standardisation Organisation. Microbiology of food, animal feed and water – Preparation, production, storage and performance testing of culture media. EN ISO 11133:2014.

Lachica R.V. and Hartman, P.A. (1968): Two improved media for isolating and enumerating enterococci in certain frozen foods. J. Appl. Bact. 31: 151-156.

Slanetz, L.W. and Bartley, C.H. (1957): Numbers of enterococci in water, sewage, and feces determined by the membrane filter technique with an improved medium. J. Bact. 74: 591-595.

Ordering Information

Product	Ordering No.	Pack size
GranuCult® SLANETZ and BARTLEY including TTC acc. ISO 7899-2	1052620500	500 g
GranuCult® SLANETZ and BARTLEY Agar (Base) acc. ISO 7899	1052890500	500 g
2,3,5-Triphenyltetrazolium chloride	1083800100	100 g
ReadyPlate™ 55 Slanetz & Bartley ISO 7899	1467650020	20 x 55 mm
EZ-Pak® Membrane Filter	EZHAWG474	4 x 150 filters
GranuCult® plus Bile Aesculin Azide Agar	1000720500	500 g
Bile Esculin Azide Agar	1463210020	20 x 90 mm
Chromocult® Enterococci-Agar	1009500500	500 g

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