

Technical Data Sheet

GranuCult™

Nutrient Agar

acc. ISO 6579, ISO 10273 and ISO 21528

Ordering number: 1.05450.0500

Nutrient Agar is used for the cultivation of nonfastidious bacteria. This culture medium complies with the specifications given by EN ISO 6579, EN ISO/FDIS 6579-1, EN ISO 6785 I IDF 93, EN ISO 10273, EN ISO 19250, EN ISO 21528 and APHA.

Mode of Action

The peptone and beef extract provide sufficient nutrients for the growth of nonfastidious bacteria. Both are the sources of nitrogen, vitamins, carbon and amino acids whilst agar is the solidifying agent.

Typical Composition

Specified by ISO 6579, ISO 6785 / IDF 93, ISO 10273, ISO 19250, ISO 21528, APHA		GranuCult™ Nutrient Agar	
Peptone	5 g/l	Peptone	5 g/l
Meat Extract	3 g/l	Meat Extract	3 g/l
Agar	9-18 g/l **	Agar-Agar*	12 g/l
Water	1000 ml/l	Water	n/a
pH at 25 °C	7.0 ± 0.2	pH at 25 °C	7.0 ± 0.2

* Agar-Agar is equivalent to other different terms of agar. ** Depending on the gel strength of the agar.

Preparation

Dissolve 20 g in 1 l of purified water. Heat in boiling water and agitate frequently until completely dissolved. Autoclave 15 min at 121 °C. Pour to plates.

The prepared medium is clear to slightly opalescent and yellowish-brown.

There should be no visible moisture on the plates before use. When moisture is present, the plates should be dried for the minimum time required to remove visible moisture, following the procedure as described by EN ISO 11133.

Experimental Procedure and Evaluation

Depend on the purpose for which the medium is used.

Incubate the inoculated plates under aerobic conditions, e.g. acc. to EN ISO/FDIS 6579-1 at 34-38 °C for 21-27 h, acc. to EN ISO 10273 at 29-31 °C for 24 hours.

Storage

Store the dehydrated medium dry and tightly closed. Protect from light. Do not use clumped or dis-colored medium. Store at +15 °C to +25 °C and use before the expiry date on the label.

According to EN ISO/FDIS 6579-1, self-prepared plates can be stored at +2 to +8 °C in the dark and protected against evaporation for up to four weeks.

Quality Control

Function	Control strains	Incubation	Reference medium	Method of control	Expected results
Productivity	<i>Escherichia coli</i> ATCC® 8739	22 - 26 h at 36-38 °C	Tryptic Soy Agar (TSA)	Quantitative	Recovery ≥ 70 %
	<i>Escherichia coli</i> ATCC® 25922				
	<i>Salmonella</i> Typhimurium ATCC® 14028				
	<i>Salmonella</i> Enteritidis ATCC® 13076				
	<i>Staphylococcus aureus</i> ATCC® 25923				
	<i>Yersinia enterocolitica</i> ATCC® 9610	22 - 26 h at 29-31 °C			
	<i>Yersinia enterocolitica</i> ATCC® 23715				

Please refer to the actual batch related Certificate of Analysis.

The performance test is in accordance with the current version of EN ISO 11133. A recovery rate of 50 % is equivalent to a productivity value of 0.5.



Escherichia coli ATCC® 25922



Salmonella typhimurium ATCC® 14028

Literature

APHA (2015) Compendium of Methods for the Microbiological Examination of Foods. 5th ed. American Public Health Association, Washington, D.C.

ISO International Standardisation Organisation. Microbiology of food and animal feeding stuffs - Horizontal method for the detection of *Salmonella* spp. EN ISO 6579:2002.

ISO International Standardisation Organisation. Microbiology of the food chain - Horizontal method for the detection, enumeration and serotyping of *Salmonella* - Part 1: Horizontal method for the detection of *Salmonella* spp. EN ISO/FDIS 6579-1:2015.

ISO International Standardisation Organisation. Milk and milk products - Detection of *Salmonella* spp. EN ISO 6785 I IDF 93:2001.

ISO International Standardisation Organisation. Water quality - Detection of *Salmonella* spp. EN ISO 19250:2010.

ISO International Standardisation Organisation. Microbiology of food and animal feeding stuffs - Horizontal method for the detection of presumptive pathogenic *Yersinia enterocolitica*. EN ISO 10272:2003.

ISO International Standardisation Organisation. Microbiology of food and animal feeding stuffs - Horizontal methods for the detection and enumeration of Enterobacteriaceae - Part 1: Detection and enumeration by MPN technique with pre-enrichment. EN ISO 21528-1:2004.

ISO International Standardisation Organisation. Microbiology of food and animal feeding stuffs - Horizontal methods for the detection and enumeration of Enterobacteriaceae - Part 2: Colony-count method. EN ISO 21528:2004.

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

Ordering Information

Product	Cat. No.	Pack size
GranuCult™ Nutrient Agar ISO 6579, ISO 10273 and ISO 21528	1.05450.0500	500 g

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