

Technical Data Sheet

ReadyPlate™55 Plate Count Agar (PCA)

Ordering number: 1.46763.0020

For the determination of the total microbial content from food and animal feed, water and other materials by the membrane filtration technique.

General

The formulation of this medium complies with the specifications given by EN ISO 4833, ISO 17410, FDA-BAM and APHA (SMA: Standard Methods Agar). Plate Count Agar is also called Tryptone Glucose Yeast Agar or Casein-Peptone Dextrose Yeast Agar.

Mode of Action

This medium does not contain any inhibitors or indicators and it is relatively rich in its nutrients. The enzymatic digest of casein (tryptone) is a nitrogen source containing a high level of free amino acids and yeast extract primarily supplies the B-complex vitamins. Glucose provides an energy source for the growth of bacteria whilst agar is the solidifying agent.

Typical Composition

ReadyPlate™ 55 PCA	
Enzymatic Digest of Casein**	5 g/l
Yeast Extract	2.5 g/l
D(+) -Glucose	1 g/l
Agar-Agar***	14 g/l
Water	n/a
pH at 25 °C	7.0 ± 0.2

Application and Interpretation

Depend on the purpose for which the medium is used.

Each plate is provided with a label including a data matrix code for paperless plate identification. The code consists of a two-dimensional 20-digit serial number, which harbors the following information:

digits 1-3: here code 228 (corresponds to article 146709); digits 4-9: lot number; digits 10-14: batch specific individual number; digits 15-20: expiration date (YY/MM/DD).

Please check each agar plate before using it on sterility and pay attention to aseptic handling in order to avoid false positive results.

Membrane filtration of water samples: Place the inoculated membrane filters on the surface of the plates. Incubate the inoculated plates under aerobic conditions at 35 °C for 48 ± 2 h.

Storage and Shelf Life

The product can be used for sampling until the expiry date if stored upright, protected from light and properly sealed at +15 °C to +25 °C.

Condensation can be prevented by avoiding quick temperature shifts and mechanical stress.

The testing procedures as described on the CoA can be started up to the expiry date printed on the label.

Disposal

Please mind the respective regulations for the disposal of used culture medium (e.g. autoclave for 20 min at 121 °C, disinfect, incinerate etc.).

Quality Control

Function	Control strains	Incubation	Reference medium	Method of control	Expected results
Productivity	E.coli ATCC 25922 WDCM 0013	25±2°C at 48±4 h	TSA	Membrane Filtration - Qualitative	Recovery 70-140%
	B. subtilis ATCC 6633 WDCM 00003				
	S. aureus ATCC 6538 WDCM 00009				
	P. aeruginosa ATCC 27853 WDCM 00025				

Please refer to the actual batch related Certificate of Analysis.

A recovery rate of 70 % is equivalent to a productivity value of 0.7.

Literature

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

APHA (2004) Standard Methods for the Examination of Dairy Products. 17th ed. American Public Health Association, Washington, D.C.

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.

FDA-BAM (2001) Chapter No. 2: Aerobic Plate Count. U.S. Food and Drug Administration - Bacteriological Analytical Manual.

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	Other pack sizes available
ReadyPlate™55 PCA	1.46763.0020	20 x 55mm	
ReadyPlate™ 55 KIT PCA	1.46764.0150	KIT*	
Granucult™ Plate Count Agar acc. ISO 4833, ISO 17410 and FDA-BAM	1.05463.0500	500g	5Kg
EZ-Pak® Membrane Dispenser Curve	EZCURVE01	1 unit	
EZ-Pak® cellulose mixed ester filter (gridded, 0,45 µm pore size)	EZHAWG474	4 x 150 pcs	
S-Pak® cellulose mixed ester filter (gridded, 0,45 µm pore size)	HAWG047S6	4 boxes of 150 membrane filters, individually packed	

* The KIT Contains 150 x 55mm Media and 1 box x150 membrane Filters.

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