Technical Data Sheet

ReadyPlate™55 KIT CN (Centrimide Nalidixic) Agar ISO 16266

Ordering number: 1.46768.0150

For the detection and enumeration of Pseudomonas spp. in water.

General

This Kit contains Centrimide Agar with Nalidixic acid that complies with the specifications given by EN ISO 16266 for the detection and enumeration of Pseudomonas aeruginosa in water using the membrane filtration technique and EZ Pak Membrane Filter according to ISO 7704. It is released through an ISO 17025 accredited lab in compliance of the specifications stated in ISO 11133.

The KIT consist of 150pcs **ReadyPlate™55** CN Agar ISO 16266 (146767) and 150 pieces of **EZ PAK®** white gridded cellulose esters membrane filters, 0.45µm pore size.

Mode of Action

The peptone mixture in the media allows a broad spectrum of Pseudomonas to grow.The amount of potassium sulfate and magnesium chloride supports enhances the pigment production of *Pseudomonas aeruginosa*.

Typical Composition

CN agar specified by EN ISO 16266		ReadyPlate™ 55 KIT CN Agar ISO 16266	
Enzymatic digest of gelatine	16 g/l	Enzymatic digest of gelatine	16 g/l
Enzymatic digest of casein	10 g/l	Casein hydrolysate	10 g/l
Potassium sulfate	10 g/l	Potassium sulfate	10 g/l
Magnesium chloride	1.4 g/l	Magnesium chloride anhydrous	1.4 g/l
Agar	11-18 g/l	Agar-agar*	11 g/l
Water	1000 ml/l	Water	n/a
Glycerol	10 ml	Glycerol	10 ml
Cetrimide	0.2 g/l	Cetrimide	0.2 g/l
Nalidixic acid	0.015 g/l	Nalidixic acid	0.015 g/l
pH at 25 °C	7.1 ± 0.2	pH at 25 °C	7.1 ± 0.2

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

Experimental Procedure and Evaluation

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.

Following the procedure for direct enumeration given by EN ISO 16266, inoculate Pseudomonas CN agar plates using the membrane filtration technique.

Incubate at 34-38 °C for 40-48 hours aerobically.

Examine the membrane filters for growth after 20-24h and 40-48 h.

Count all colonies that produce a blue/green (pyocyanin) colour as confirmed *Pseudomonas aeruginosa.*

For counting and confirmation of fluorescent colonies (under UV light) and/or reddish brown pigmented colonies follow the procedure given by EN ISO 16266.

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	*Pseudomonas aeruginosa* ATCC® 10145 WDCM 00024	44 ± 2 h at 36 ±2 °C	Tryptic Soy Agar (TSA)	Quantitative with membrane filtration	Recovery ≥ 50 %, blue-green colonies with fluorescence under UV light
	Pseudomonas aeruginosa ATCC® 27853 WDCM 00025				
	Pseudomonas aeruginosa ATCC® 9027 WDCM 00026				
Selectivity	*Escherichia coli* ATCC® 8739 WDCM 00012	40-48 h at 34-38 °C	-	Qualitative	Total inhibition
	Escherichia coli ATCC® 25922 WDCM 00013				
	Enterococcus faecalis ATCC® 19433 WDCM 00009				

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.

Literature

Druggan, P. and Iverson, C. (2012): Culture media for food spoilage bacteria of the order Pseudomodales: *Pseudomonas, Acinetobacter* and *Psychrobacter spp*. In: Handbook of Culture Media for Food and Water Microbiology. (Corry, J.E.L., Curtis, G.D.W. and Baird, R.M. eds)., pp. 482-502. Royal Society of Chemistry, Cambridge, UK.

Goto, S., and Enomoto, S. (1970): Nalidixic Acid Cetrimide Agar. A New Selective Plating Medium for the Selective Isolation of *Pseudomonas aeruginosa*. Japan. J. Microbiol. **14**: 65 - 72.

ISO International Standardisation Organisation. Meat and meat products - Enumeration of presumptive *Pseudomonas spp.* EN ISO 13720:2010.

ISO International Standardisation Organisation. Water quality -- Detection and enumeration of *Pseudomonas aeruginosa* -- Method by membrane filtration. EN ISO 16266:2006.

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

Mead, G.C. and Adams, B.W. (1977): A selective medium for the rapid isolation of *Pseudomonas* associated with poultry meat spoilage. Br. Poult. Sci. **18**: 661 - 670.

Watkins, J. and Sartory, D. (2012): Culture media for the isolation and enumeration of microorganisms from water. In: Handbook of Culture Media for Food and Water Microbiology. (Corry, J.E.L., Curtis, G.D.W. and Baird, R.M. eds)., pp. 605-618. Royal Society of Chemistry, Cambridge, UK.

Ordering Information

Product	Cat. No.	Pack size
ReadyPlate™ 55 KIT CN Agar ISO 16266	1.46768.0150	KIT*
ReadyPlate™ 55 CN Agar ISO 16266	1.46767.0020	20 x 55mm
GranuCult™ Pseudomonas CFC/CN Agar (Base) acc. ISO 13720 and ISO 16266	1.07620.0500	500 g
Pseudomonas CN Selective Supplement (Cetrimide, Nalidixic acid)	1.07624.0010	10 vials
Glycerol 85%	1.04094.0500	500 ml
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
King agar B (Base)	1.10991.0500	500 g
Bactident® Oxidase - For the detection of cytochrome oxidase in microorganisms	1.13300.0001	50 strips

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