

Technical Data Sheet

HEIMPLATE™ Pseudomonas Agar

Ordering number: 1.46024.0020

90 mm settle plates is designed for selective isolation of *Pseudomonas aeruginosa* in non-sterile pharmaceutical products.

Mode of Action

Pseudomonas Agar P is used for selective isolation of *Pseudomonas aeruginosa*. *Pseudomonads* have very low nutritional demands.

Typical Composition (g/l)

Gelatin Peptone	16 g/l
Casein Hydrolysate	10 g/l
Magnesium Sulfate	1.4 g/l
K ₂ SO ₄	10 g/l
Glycerol	10 ml/l
Agar	11 g/l
Agar No. 3	7 g/l

The appearance of the medium is clear and yellowish. The pH value is in the range of 6.9-7.3. The medium can be adjusted and/or supplemented according to the performance criteria required.

Application and Interpretation

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

Pseudomonas aeruginosa is able to produce different pigments in different combinations. More than 90 % of all strains produce the bluish, non-fluorescent pyocyanin as well as the yellowish, fluorescent pyoverdine (= fluorescein). The production of the brownish to black pyomelanin and red pyorubin is very seldom.

The growth of colonies indicates the possible presence of *P. aeruginosa*. This confirmed by identification tests.

The product complies with the test if colonies are not present or if the confirmatory identification tests are negative. *P. aeruginosa* is characterized by a sweetish smell like lime-tree blossoms or

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grapes (aminoacetophenone). Furthermore, the colonies will show β -hemolysis on blood agar.

The most important Pseudomonads can be pre-differentiated following the characteristics in the table below.

Phenotypic differentiation of the most important Pseudomonads ¹⁾

Characteristic	<i>P. aeruginosa</i>	<i>P. fluoreszens</i>	<i>P. putida</i>	<i>P. stutzeri</i>
Oxidase	+	+	+	+
Growth at 41 °C	+	-	-	+/-
Pyoverdin ²⁾ („Fluorescein“)	+	+	+	-
Pyocyanin ²⁾	+	-	-	-
Gelatinase	+	+	-	-

¹⁾ Derived from Bergey`s Manual of Determinative Bacteriology (1994) 9th Edition. Williams & Wilkins (+ = 90 % or more of the strains are positive; - = 90 % or more of the strains are negative)

²⁾ Pyoverdin („Fluorescein“) and Pyocyanin can be identified using Pseudomonas Agar P (article number 146024) or King A-Agar and Pseudomonas-Agar F (article number 146047)

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

Control Strains	ATCC #	Inoculum CFU	Incubation	Expected Results
<i>Pseudomonas aeruginosa</i>	9027	streak plate method	70-74 h at 35-37 °C	good growth; blue-green pigment
<i>Pseudomonas aeruginosa</i>	27853	streak plate method	70-74 h at 35-37 °C	good growth; blue-green pigment

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<i>Burkholderia cepacia</i>	25416	streak plate method	70-74 h at 35-37 °C	good growth; no blue-green pigment
<i>Escherichia coli</i>	8739	streak plate method	70-74 h at 35-37 °C	good growth; no blue-green pigment

Please refer to the actual batch related Certificate of Analysis.

Literature

Brown, V.J. and Lowbury, E.J.L. (1965): Use of improved cetrимide agar medium and other culture methods for *Pseudomonas aeruginosa*. J. Clin. Pathol. 18: 752-756.

Lowbury, E.J.L. and Collins, A.G. (1955): The use of a new cetrимide product in a selective medium for *Pseudomonas pyocyanea*. J. Clin. Pathol. 8: 47-48.

Ordering Information

Product	Cat. No.	Pack size
HEIMPLATE™ <i>Pseudomonas</i> agar	1.46024.0020	20 x 90 mm plates