

## Product Information

### 11012 Cetrimide Nalidixic acid Agar

For the isolation and enumeration (MPN method) of *Pseudomonas aeruginosa* from food products. Recommended by the "Schweizerisches Lebensmittelbuch" 2001., chapter 56A.

#### Composition:

Ingredients	Grams/Litre
Gelatine peptone, pancreatic	16.0
Casein hydrolysate	10.0
Potassium sulfate	10.0
Magnesium chloride	1.4
Cetrimide	0.2
Agar	15.0
Final pH 7.3+/- 0.2 at 37 °C	

Store prepared media below 8 °C, protected from direct light. Store dehydrated powder in a dry place in tightly-sealed containers at 2-25 °C.

#### Directions:

Dissolve 52.6 g in 950 ml distilled water, add 10 ml glycerol (Cat. No. 49767) and sterilize by autoclaving at 121°C for 15 minutes. After cooling to 45-50°C add the rehydrate content of 1 vial Cetrimide Nalidixic acid Agar Supplement (Cat. No. 50225). Mix well. The prepared agar may contain slight precipitates.

#### Principle and Interpretation:

Gelatine peptone and Casein hydrolysate provides amino acids and other complex nitrogenous substances. Cetrimide (Cetyltrimethylammonium bromide; Cat. No. 52370) is incorporated in the medium to inhibit bacteria other than *Pseudomonas aeruginosa*. It acts as a quaternary ammonium compound and cationic detergent which causes nitrogen and phosphorus to be released from bacterial cells other than *Pseudomonas aeruginosa*. Nalidixic acid present in the supplement improve the inhibition of the accompanying microbial flora (3, 4). For the isolation of *Pseudomonas aeruginosa*, plates of Cetrimide Agar should be inoculated from non-selective medium such as Brain Heart Infusion Broth (Cat. No. 70138) or Tryptone Soya Broth (Cat. No. 22092). If the count is high the test sample can be directly inoculated onto this medium. According the Schweizerisches Lebensmittelbuch (2) it is recommended to to put membrane filter, with different dilutions, directly on the agar plates. Glycerol is the carbon source. Magnesium chloride and potassium sulfate enhance the production pycocyanin and fluorescein. *Pseudomonas aeruginosa* colonies appear pigmented blue, bluegreen, red or nonpigmented but are fluorescent under UV light (360nm).

Cultural characteristics after 24-48 hours at 37°C.

Organisms (ATCC)	Growth	Pigmentation
<i>Pseudomonas aeruginosa</i> (27853)	+	+
<i>Pseudomonas putida</i> (12633)	+	-
<i>Xanthomonas maltophilia</i> (13637)	-	-
<i>Escherichia coli</i> (25922)	-	-

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### References:

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