



Salmonella Agar, öNöZ

M573

Salmonella Agar, öNöZ is used for the selective isolation and identification of *Salmonellae* from clinical specimens

Composition**

Ingredients	Gms / Litre
Peptic digest of animal tissue	6.800
Yeast extract	3.000
Meat extract	6.000
Lactose	11.500
Sucrose	13.000
Bile salts mixture	3.825
Trisodium citrate, 5H ₂ O	9.300
Sodium thiosulphate, 5H ₂ O	4.250
L-Phenylalanine	5.000
Disodium phosphate, 2H ₂ O	1.000
Ferric citrate	0.500
Magnesium sulphate	0.400
Brilliant green	0.00166
Neutral red	0.022
Aniline blue	0.250
Metachrome yellow	0.470
Agar	15.000
Final pH (at 25°C)	7.1±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 76.15 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. DO NOT AUTOCLAVE. Mix well before pouring into sterile Petri plates.

Principle And Interpretation

Salmonella and *Shigella* are gram-negative, facultatively anaerobic, non-sporulating rods in the family *Enterobacteriaceae*. They are widely distributed in animals. Salmonella Agar öNöZ was developed by öNöZ (1) for rapid detection of *Salmonella* and *Shigella* species from clinical specimens.

Peptic digest of animal tissue, yeast extract and meat extract provide nitrogenous compounds, vitamin B complex and other essential growth nutrients. Lactose and sucrose are the fermentable carbohydrates. Bile salts mixture, brilliant green and sodium citrate inhibit gram-positive organisms. Sodium thiosulphate and ferric citrate enable the detection of hydrogen sulphide production indicated by colonies with black centers. Lactose and sucrose fermenting members of *Enterobacteriaceae* are partially inhibited, and their colonies can be differentiated by means of the colour produced in the presence of the indicators - neutral red and aniline blue. *Proteus* species deaminate phenylalanine to give phenylpyruvate, which forms a dark brown complex with iron ions. Phenylalanine also neutralizes chloramphenicol, which aids in the detection of *Salmonellae* from patients under treatment.

Quality Control

Appearance

Beige to light brown homogeneous free flowing powder

Gelling

Firm, comparable with 1.5% Agar gel

Colour and Clarity of prepared medium

Greenish brown coloured clear to slightly opalescent gel forms in Petri plates

Reaction

Reaction of 8.03% w/v aqueous solution at 25°C. pH : 7.1±0.2

pH

6.90-7.30

Cultural Response

M573: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organism	Inoculum (CFU)	Growth	Recovery	Colour of colony	Colour change of medium
Cultural Response					
<i>Enterobacter aerogenes</i> ATCC 13048	50-100	good-luxuriant	≥50%	bluish or yellowish	yellow
<i>Escherichia coli</i> ATCC 25922	50-100	good	40-50%	blue with bile precipitation	blue
<i>Klebsiella pneumoniae</i> ATCC 13883	50-100	poor-fair	20-30%	bluish-purple, may have slight precipitation ring around colony	bluish green
<i>Proteus mirabilis</i> ATCC 25933	50-100	good-luxuriant	≥50%	dark brown to black	dark yellow
<i>Pseudomonas aeruginosa</i> ATCC 27853	50-100	good-luxuriant	≥50%	yellow to brown	yellow
<i>Salmonella Typhi</i> ATCC 6539	50-100	good-luxuriant	≥50%	yellow with or without black centres	yellow
<i>Salmonella Typhimurium</i> ATCC 14028	50-100	good-luxuriant	≥50%	yellow with black centres	yellow
<i>Shigella flexneri</i> ATCC 12022	50-100	good-luxuriant	≥50%	yellow to brown	dark brown
<i>Staphylococcus aureus</i> ATCC 25923	≥10 ³	inhibited	0%		

Storage and Shelf Life

Store below 30°C in tightly closed container and the prepared medium below 2-8°C. Use before expiry date on the label.

Reference

1. öNöZ E., Hoffmann K., 1978, Zbl. Bakt. Hyg., I. Abt. Orig., A240:16.

Revision : 1 / 2011

**Disclaimer :**

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal or therapeutic use but for laboratory, diagnostic, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.