ORANGE SERUM BROTH

Broth for cultivation and enumeration of microorganisms associated with spoilage of citrus products.

TYPICAL FORMULA (g/L)

Orange Serum	10.0
Yeast Extract	3.0
Tryptone	10.0
Dextrose	4.0
Monopotassium Phosphate	2.5
Final pH =5.5 ± 0.2 at 25°C	

DESCRIPTION

ORANGE SERUM BROTH is a broth for cultivation and enumeration of microorganisms associated with spoilage of citrus products.

PRINCIPLE

ORANGE SERUM BROTH contains tryptone as a source of carbon and nitrogen for general growth requirements. Orange serum provides the acid environment favorable to recovering acid-tolerant microorganisms. Yeast extract supplies B-complex vitamins which stimulate growth. Dextrose is the carbohydrate. Monopotassium phosphate is the buffer of the medium. Orange Serum Broth can be used concentrate 10× for small samples to initiate growth of saprophytic and pathogenic fungi, as well as detecting and enumerating butyric acid anaerobes.

PREPARATION

Suspend 30.0 g of powder in 1 litre of distilled or deionized water. Heat until completely dissolved. Dispense 10 mL amounts into tubes. Sterilize in the autoclave at 121 °C for 15 minutes.

TECHNIQUE

Inoculate the medium with the sample and incubate at 30±2°C for 18-48 hours.

INTERPRETATION OF RESULTS

Turbidity indicates growth.

STORAGE

The powder is very hygroscopic: store the powder at 10-30 °C, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until signs of deterioration or contamination are evident.
Store prepared media at 2-8°C.

WARNING and PRECAUTIONS

The product is not classified as hazardous by current legislation and does not contain harmful substances in concentrations of ≥1%. It is nevertheless recommended that the Safety Data Sheet be consulted on its correct use. The product must be used only by properly trained operators.

DISPOSAL of WASTE

Disposal of waste must be carried out according to national and local regulations in force.

REFERENCES

1. Downes and Ito (ed.). 2001. Compendium of methods for the microbiological examination of foods, 4th ed. American Public Health Association, Washington, D.C.
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3. Murdock, Folinazzo and Troy. 1952. Food Technol. *6*:181.
4. Stevens. 1954. Food Technol. *8*:88.
5. MacFaddin. 1985. Media for isolation-cultivation-identification-maintenance of medical bacteria, vol. 1. Williams & Wilkins, Baltimore, Md

Liofilchem s.r.l.
Via Scozia, Zona industriale - 64026 Roseto degli Abruzzi (Te) Italy - Tel. +39.0858930745 - Fax +39.0858930330
Web site: http://www.liofilchem.net - E-mail: liofilchem@liofilchem.net

PRODUCT SPECIFICATIONS

NAME
ORANGE SERUM BROTH

PRESENTATION
Dehydrated culture medium

STORAGE
10-30°C

PACKAGING

Code	Content	Packaging
610307	500 g	500 g of powder in plastic bottle

pH OF THE MEDIUM
5.5 ± 0.2

USE
ORANGE SERUM BROTH is a broth for cultivation and enumeration of microorganisms associated with spoilage of citrus products.

TECHNIQUE
Refer to technical sheet of the product.

APPEARANCE of the MEDIUM
Dehydrated medium
Appearance: free-flowing, homogeneous.
Colour: tan.
Prepared medium
Appearance: clear.
Colour: dark amber.

SHELFLIFE
4 years

QUALITY CONTROL
1. Control of general characteristics, label and print
2. Microbiological control
   Inoculum for productivity: 100-1000 UFC/ml
   Inoculate and incubate plates at 30 ± 2°C for 18-48 hours.

Microorganism		Growth
Aspergillus niger	ATCC 16404	good
Saccharomyces cerevisiae	ATCC 9763	good
Lactobacillus fermentum	ATCC 9338	good

TABLE OF SYMBOLS

LOT Batch code	Do not reuse	Manufacturer	Contains sufficient for <n> tests	Temperature limitation
REF Catalogue number	Fragile, handle with care	Use by	Caution, consult accompanying documents	

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