

Technical Data Sheet

Orange Serum Broth – 2mL Liquid Media Ampoules Cat. No. MHA000P20

This medium is recommended for the cultivation of aciduric micro-organisms (yeasts, molds, lactic acid bacteria) particularly those associated with spoilage of citrus products, such as beverages, fruit juices, fruit extracts, and citrus concentrates.

Mode of Action

Orange serum provides the acid environment favorable to recovering acid tolerant micro-organisms. Non aciduric micro-organisms are inhibited by the low pH. Yeast Extract provides B-complex vitamins that stimulate growth. Tryptone provides carbon and nitrogen sources for general growth requirements. Dextrose is a fermentable carbohydrate. DiPotassium Phosphate is a buffering agent.

Typical Composition (per liter of purified water)

Orange Serum Concentrate	10.0 g	Dextrose	4.0 g
Yeast Extract	3.0 g	DiPotassium Phosphate	2.5 g
Tryptone	10.0 g		

Application

1. Collect the sample in a sterile container. The sample should be a 100 ml minimum. Sample dilution might be necessary if high counts are anticipated.
2. Invert one Orange Serum Broth ampoule 2 to 3 times. Open the ampoule. Remove the lid of a petri dish and carefully pour the contents equally onto the absorbent pad.
3. Set up the membrane filtration apparatus. Use sterile forceps to put the membrane filter in the assembly. The grid side is up.
4. Invert the sample / diluted sample for approximately 30 seconds to thoroughly mix the sample.
5. Pour the sample / diluted sample into the funnel. If the volume is less than 20ml, add 10 ml of sterile buffered dilution water to the funnel.
6. Apply the vacuum until the funnel is empty. Then stop the vacuum.
7. Rinse the funnel with 20ml to 30ml of sterile buffered dilution water. Apply the vacuum. Rinse the funnel two more times.
8. Stop the vacuum when the funnel is empty. Remove the funnel from the assembly. Use sterile forceps to lift the membrane filter.
9. Put the membrane filter on the absorbent pad. Let the membrane filter bend and fall equally across the absorbent pad to make sure that the air bubbles are not trapped below the filter.
10. Secure the lid on the petri dish and invert the dish.
11. Incubate the inverted petri dish for 24 - 48 hours at 35° C.
12. Remove the petri dish from the incubator. Use a microscope to count the number of bacteria colonies on the membrane filter.
13. Interpret and report the results.

Results Reporting

Report the colony density as the number of colonies in 100ml of sample. If there's more than 200 colonies, dilute the sample and use the diluted sample in the test procedure.

Colonies in 100ml = Colonies counted / ml of sample x 100.

Storage and Shelf Life

The product can be used until the expiry date if the unopened ampoules are stored sealed in the aluminum foil bag at 2 - 10°C.

Disposal

Please dispose of used culture medium in accordance with local regulations (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	Saccharomyces cerevisiae ATCC® 9763 WDCM 00058	24 - 48 hours at 35° C	Previously validated batch of Orange Serum Broth	Quantitative	Recovery 85-115% Characteristic colonies
	Lactobacillus plantarum ATCC® 4008				

Please refer to the actual batch specific certificate of analysis.

Yeast appear white, creamy and large.
Bacteria are smaller, white or transparent.

Orange Serum Broth



MHA000P20

Ordering Information

Product	Cat. No.	Pack size
Orange Serum Broth	MHA000P20	50 x 2 mL plastic ampoules

Literature

Compendium of methods for the microbiological examination of foods. 2001 American Public Health Association and others American Public Health Association.

MacFaddin JF Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, (1985)

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