

Technical Data Sheet

M-(Mannose) Broth

Ordering number: 1.10658.0500

For the accelerated detection of Salmonella in dried foods and feeds within the enrichment serology (ES) procedure.

Mode of Action

M-(Mannose) Broth is based on the formulation of SPERBER and DEIBEL (1969), eliminating dextrose of APT Broth to allow citrate to serve as an energy source. Mannose was added to the medium to prevent fibril agglutination in Salmonella in the serological procedure. Inorganic salt ions stimulate Salmonella growth. Tween® is a source for fatty acids.

Typical Composition (g/L)

M-(Mannose) Broth	
Yeast extract	5.0
Peptone from casein	12.5
D-mannose	2.0
Sodium citrate	5.0
Sodium chloride	5.0
di-Potassium hydrogen phosphate	5.0
Manganese chloride	0.14
Magnesium sulfate	0.8
Ferrous(II) sulfate	0.04
Tween® 80	0.75

Preparation

Suspend 36.2 g in 1 litre of demineralised water and autoclave (15 min at 121 °C).

pH: 7.0 ± 0.2 at 25°C.

The prepared broth is clear and yellowish-brown.

Experimental Procedure and Evaluation

1. Suspend sample in Buffered Peptone Water, incubate for 18-24 hours at 35°C aerobically.
2. Transfer 1 ml each to 9 ml RAPPAPORT-VASSILIADIS Soya (RVS) Broth and 9 ml Selenite Cystine Broth, incubate for 24 hours at 35°C.
3. Transfer 1 drop of each selective broth in 10 ml M-Broth; incubate for 6-8 hours at 35°C.
4. Perform a modified H-agglutination test according to SPERBER and DEIBEL literature.

Storage

Store at +15 °C to +25 °C, dry and tightly closed. Do not use clumped or discolored medium. Protect from UV light (including sun light). For *in vitro* use only.

Quality Control

Control strains	Growth at 24h, 35°C, aerobic
Salmonella choleraesuis ATCC 13312	Good to very good
Salmonella typhimurium ATCC 14028 (WDCM 00031)	Good to very good
Salmonella enteritidis ATCC13076 (WDCM 00030)	Good to very good

Please refer to the actual batch related Certificate of Analysis.



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Literature

SPERBER, W.H., a. DEIBEL, R.H.: Accelerated procedure for Salmonella detection in dried foods and feeds involving only broth culture and serological reaction. - **Appl. Microbiol.** **17**; 533-539 (1969).

Ordering Information

Product	Cat. No.	Pack size	Other pack sizes
M-(Mannose) Broth	1.10658.0500	500 g	
GranuCult™ Buffered Peptone Water acc. ISO 6579, ISO 21528, ISO 22964, FDA-BAM and EP	1.07228.0500	500 g	5 kg, 25 kg
GranuCult™ RVS (RAPPAPORT-VASSILIADIS-Soya) Broth (Base) acc. ISO 6579	1.07700.0500	500 g	
Selenite Cystine Broth	1.07709.0500	500 g	

Merck KGaA, 64271 Darmstadt, Germany
Fax: +49 (0) 61 51 / 72-60 80
mibio@merckgroup.com
www.merckmillipore.com/biomonitoring

Find contact information for your country at:
www.merckmillipore.com/offices
For Technical Service, please visit:
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