

# MAST® Culture Media and Supplements

## Technical Information Sheet

Product Code DM 133



## Eosin Methylene Blue Agar

A versatile, differential medium.

### 1. Description

MAST Eosin Methylene Blue Agar is based on the formulation originally proposed by Levine.<sup>1,2</sup> It is a versatile medium and is used to differentiate *Escherichia coli* from

*Citrobacter aerogenes* in food and water,<sup>3</sup> for the identification of coagulase positive staphylococci<sup>4</sup> and for the rapid identification of *Candida albicans*.<sup>5-8</sup>

### 2. Typical Formula\*

Formula	grams per litre
Peptone mixture	12.5
Lactose	10.0
Dipotassium hydrogen phosphate	2.0
Eosin yellow	0.4
Methylene blue	0.1
Agar	15.0
<b>pH approx. 6.8</b>	

### 3. Directions

1. Suspend by swirling 40g of powder in 1 litre of distilled or deionised water.
2. Autoclave at 121°C (15 p.s.i.) for 15 minutes.
3. Cool to 55-60°C and shake the medium to oxidise the methylene blue and to suspend the precipitate which is a vital part of the medium.

## 4. In Use

### Colony Characteristics

*E. coli* - colonies with green metallic sheen by reflected light and purple centres by transmitted light.

*C. aerogenes* - raised mucoid colonies, often confluent growth. Metallic sheen usually absent, brown centres by transmitted light.

*Non Lactose fermenting organisms* – colourless translucent colonies.

*C.albicans* - 'spidery' or 'feathery' colonies after 24-48 hours at 37°C in 10% CO<sub>2</sub>. Appearance of other species may be variable. *Coagulase positive staphylococci* – colourless pinpoint colonies. Coagulase negative strains do not grow on this medium.

## 5. References

1. Levine M. *J Infect Dis.* 1918; **23**: 43-47.
2. Levine, Bull. 1921; **62**: Iowa State College Engr Exp. Station.
3. Windle Taylor E. *The Examination of Water and Water Supplies* 1958; 7th ed. Churchill Ltd London.
4. Menolasino NJ. *J Lab Clin Med.* 1960; No.6. 908-910.
5. Weld Julia T. *Arch Dermat Syph.* 1952; **66**: 691-694.
6. Weld Julia T. *Arch Dermat Syph.* 1953; **67**: 473-478.
7. Vogel RA, Moses Mary R. *Am J Clin Pathol.* 1957; **28**: 103-106.
8. Walker Leila, Huppert M. *Am J Clin Pathol.* 1959; **31**: 551-558.

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**Mast Group Ltd.**  
Mast House, Derby Road, Bootle  
Liverpool, Merseyside, L20 1EA  
United Kingdom  
Tel: + 44 (0) 151 472 1444  
Fax: + 44 (0) 151 944 1332  
email: sales@mastgrp.com  
Web: www.mastgrp.com

**Mast Diagnostica GmbH**  
Feldstrasse 20  
DE-23858 Reinfeld  
Germany  
Tel: + 49 (0) 4533 2007 0  
Fax: + 49 (0) 4533 2007 68  
email: mast@mast-diagnostica.de  
Web: www.mastgrp.com

**Mast Diagnostic**  
12 rue Jean-Jacques Mention  
CS91106, 80011 Amiens, CEDEX 1  
France  
Tél: + 33 (0) 3 22 80 80 67  
Fax: + 33 (0) 3 22 80 99 22  
email: info@mast-diagnostic.fr  
Web: www.mastgrp.com

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\*Formulation may be modified to meet performance criteria

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