



PRODUCT SPECIFICATION SHEET

Violet Red Bile Agar w/ Glucose and Lactose (DM1018)

Intended Use

Violet Red Bile Agar w/ Glucose and Lactose (DM1018) is recommended for selective isolation, detection and enumeration of *coli-aerogenes* in water, milk and other dairy products.

Product Summary and Explanation

The enumeration of *Enterobacteriaceae* is of great concern in monitoring the sanitary condition of food. Violet Red Bile Agar w/ Glucose and Lactose is a selective medium recommended for detection of *Enterobacteriaceae* species. This medium was formulated by Mossel et al^(1,2,3) by addition of glucose to the medium and observed an improved detection of coliforms. Depending upon the group of *Enterobacteriaceae* to be recovered incubation can be carried out at different temperatures and incubation time.⁽⁴⁾

Principles of the Procedure

Violet Red Bile Agar w/ Glucose and Lactose contains peptic digest of animal tissue and yeast extract which provide nitrogenous compounds, vitamins, amino acids and other nutrients essential for bacterial metabolism. This media is selective due to presence of the inhibitors; bile salts mixture and crystal violet which help to inhibit the accompanying gram-positive and unrelated flora especially staphylococci. Lactose and glucose are fermentable sugars. Neutral red indicator helps to detect lactose and glucose fermentation. Sodium chloride maintains the osmotic equilibrium in the medium. The red colour is due to absorption of neutral red and a subsequent colour change of the dye when the pH of medium falls below 6.8.

Formula / Liter

Ingredients	Gms / Liter
Peptic digest of animal tissue	7.00
Yeast extract	3.00
Lactose	10.00
Glucose	10.00
Bile salts mixture	1.50
Sodium chloride	5.00
Neutral red	0.03
Crystal violet	0.002
Agar	12.00
Final pH: 7.4 ± 0.2 at 25°C	
Formula may be adjusted and/or supplemented as required to meet performance specifications	

Precautions

1. For Laboratory Use only.
2. IRRITANT. Irritating to eyes, respiratory system, and skin.

Directions

1. Suspend 48.53 grams of medium in one liter of distilled water.
2. Heat to boiling to dissolve the medium completely.
3. DO NOT AUTOCLAVE.
4. Mix well and pour into sterile Petri plates.





PRODUCT SPECIFICATION SHEET

Quality Control Specifications

Dehydrated Appearance	Light yellow to pink homogeneous free flowing powder
Prepared Medium	Reddish purple coloured clear to slightly opalescent gel forms in Petri plates
Reaction of 4.85% Solution	pH : 7.4± 0.2 at 25°C
Gel Strength	Firm, comparable with 1.2% Agar gel

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

Sr. No.	Organisms	Results to be achieved			
		Inoculum (CFU)	Growth	Recovery	Colour of colony
1.	<i>Enterobacter aerogenes</i> ATCC 13048	50-100	good-luxuriant	≥50%	pink-red
2.	<i>Escherichia coli</i> ATCC 25922	50-100	good-luxuriant	≥50%	pink-red with bile precipitate
3.	<i>Salmonella Enteritidis</i> ATCC 13076	50-100	good-luxuriant	≥50%	light pink
4.	<i>Staphylococcus aureus</i> ATCC 25923	50-100	inhibited	0%	--
5.	<i>Escherichia coli</i> ATCC 8739	50-100	good-luxuriant	≥50%	pink-red with bile precipitate
6.	<i>Staphylococcus aureus</i> ATCC 6538	≥10 ³	inhibited	0%	--
7.	<i>Escherichia coli</i> NCTC 9002	50-100	good-luxuriant	≥50%	pink-red with bile precipitate

The organisms listed are the minimum that should be used for quality control testing.

Test Procedure

Refer appropriate references for standard test procedures.

Results

Lactose and glucose fermenting strains grow as red or pink coloured colonies and may be surrounded by a zone of acid precipitated bile. Refer appropriate references and procedures for interpretation of results.

Storage

Store the sealed bottle containing the dehydrated medium at 10 - 30°C. Once opened and recapped, place container in a low humidity environment at the same storage temperature. Protect from moisture and light.

Expiration

Refer to the expiration date stamped on the container. The dehydrated medium should be discarded if not free flowing, or if the appearance has changed from the original color. Expiry applies to medium in its intact container when stored as directed.

Limitations of the Procedure

- 1 The medium is not selective only for *B. cepacia*. Other organisms forming similar colonies may also grow on this medium. Therefore results obtained on this media should not be the sole criteria for identification of *B. cepacia*.⁽⁶⁾
- 2 Consult appropriate texts for detailed information and recommended procedures.





PRODUCT SPECIFICATION SHEET

Packaging

Product Name : Violet Red Bile Agar w/ Glucose and Lactose

Product Code : DM1018

Available Pack sizes : 500gm

References

1. Mossel D.A.A., Mengerink W.H.J. & Scholts H.H., 1962, J. Bacteriol, 84 : 381.
2. Mossel D.A.A. et al, 1978, Lab. practice, 27 No. 12 : 1049.
3. Mossel D.A.A. et al, 1979, Food Protect., 42 : 470.
4. Mossel D.A.A. et al, 1986, J. Appl. Bact., 60 : 289

Further Information

For further information please contact your local MICROMASTER Representative.



MICROMASTER LABORATORIES PRIVATE LIMITED

Unit 38/39, Kalpataru Industrial Estate,

Off G.B. Road, Near 'R-Mall', Thane (W) - 400607. M.S. INDIA.

Ph: +91-9320126789/9833630009/9819991103

Email: sales@micromasterlab.com

DM1018SPSS, QAD/FR/024,Rev.00

Disclaimer :

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

