



PRODUCT SPECIFICATION SHEET

BYE Agar (DM384)

Intended Use

BYE Agar (DM384) is recommended for cultivation and routine studies of distribution of *Mycoplasmas* or *Pleuropneumonia* Like organisms (PPLoS) and L- forms of bacteria.

Product Summary and Explanation

Mycoplasma refers to a genus of bacteria that lack a cell wall. *Mycoplasmas* (mollicutes) are the smallest free-living microorganisms.⁽¹⁾ Members of the class *Mollicutes*, *Mycoplasma* were first recognized from a case of pleuropneumonia in a cow.⁽²⁾ The organism was designated "pleuropneumonia - like organism or PPLo because of similarities to *Mycoplasma mycoides* (subsp. *mycoides*), the causative agent of bovine pleuropneumonia.⁽³⁾ Although, some species are normal human respiratory tract flora, *M. pneumoniae* is a major cause of respiratory disease (primary atypical pneumonia, sometimes called "walking pneumonia"). *M. hominis*, *M. genitalium* and *Ureaplasma urealyticum* are important colonizers (and possible pathogens) of the human genital tract.

BYE media are simple media formulated for cultivation and routine studies of distribution, habitat and possible pathogenesis of *Mycoplasma* - Pleuropneumonia like organisms and L-forms of bacteria by Barile, Yaguchi and Eveland.⁽⁴⁾ These media can be used for isolation of PPLOs from urethritis, penile ulcerations and cervical specimens and L-forms of *Corynebacterium*, *Neisseria*, and *Streptococcus*. These are also used for detecting PPLo contamination of tissue culture and cell-lines⁽⁵⁾ and for membrane filter work.⁽⁶⁾

Principles of the Procedure

BYE Agar contains brain and heart infusion along with yeast extract, which provide carbon, nitrogen, vitamins and other growth factors required for the metabolism of *Mycoplasma* - Pleuropneumonia like organisms. Dextrose is the energy source. Sodium chloride maintains the osmotic balance.

Formula / Liter

Ingredients	Gms / Liter
Proteose peptone	10.00
Calf brain, infusion from	200.00
Beef heart, infusion from	250.00
Dextrose	2.00
Sodium chloride	5.00
Disodium phosphate	2.50
Yeast extract	2.00
Agar	13.00
Final pH: 7.9 ± 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.





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Directions

1. Suspend 52 grams of the medium in 850 ml of distilled water.
2. Heat to boiling, to dissolve the medium completely.
3. Autoclave at 121°C, 15 psi pressure, for 15 minutes / validated cycle.
4. Cool to 50°C and aseptically add 150 ml of sterile human or animal blood or serum.
5. Mix gently and pour into sterile Petri plates.

Quality Control Specifications

Dehydrated Appearance	Cream to yellow homogeneous free flowing powder
Prepared Medium	Yellow coloured, clear to slightly opalescent gel forms in Petri plates
Reaction of 5.2% Solution	pH : 7.9 ± 0.2 at 25°C
Gel Strength	Firm, comparable with 1.3% Agar gel

Expected Cultural Response: Cultural characteristics observed with added serum under humidified anaerobic conditions, after an incubation at 35-37°C for 5-10 days.

Sr. No.	Organisms	Results to be achieved
		Growth
1.	<i>Mycoplasma bovis ATCC 25523</i>	good-luxuriant
2.	<i>Mycoplasma gallinarium ATCC 19708</i>	good-luxuriant
3.	<i>Mycoplasma pneumonia ATCC 15531</i>	good-luxuriant
4.	<i>Streptococcus pneumoniae ATCC 6303</i>	good-luxuriant

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

Test Procedure

1. Using appropriate inoculum, inoculate tubes of media in duplicates.
2. One set is incubated aerobically while the other anaerobically for 48 hours or more.
3. Usually growth occurs within 3-5 days; however, negative results are reported after 10 days.
4. Anaerobic conditions are most important for the first 3 days while secondary transfers can be incubated aerobically.

Results

Refer to appropriate references and procedures for interpretation of results.

Storage

Store the sealed bottle containing the dehydrated medium at 2 - 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. For identification, organisms must be in pure culture. Morphological, biochemical and/or serological tests should be performed for final identification.





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2. Consult appropriate texts for detailed information and recommended procedures.

Packaging

Product Name : BYE Agar

Product Code : DM384

Available Pack sizes : 500gm

References

1. Murray P.R., Baron E. J., Pfaller M.A., Tenover F.C., Tenover R.H.(Eds.),1995, Manual of Clinical Microbiology, 6th Ed., ASM Press.
2. Baron, Peterson and Finegold. 1994. Bailey & Scott's diagnostic microbiology, 9th ed. Mosby-Year Book, Inc. St. Louis, Mo.
3. Collee J.G, Fraser A.G., Marmion B.P., Simmons. A (Eds.), 1996, Mackie and McCartney Practical Medical Microbiology, 14th Ed, Churchill Livingstone.
4. Barile, Yaguchi, Eveland, 1958, Am. J. Clin. Path. 30:171.
5. Barile, 1962, National Cancer Institute Monograph, No.7: 5.
6. Barile, 1962, J. Bacteriol., 83:430.

Further Information

For further information please contact your local MICROMASTER Representative.

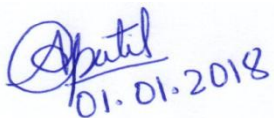
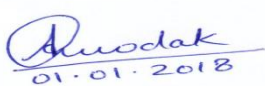



MICROMASTER LABORATORIES PRIVATE LIMITED

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Unit 38/39, Kalpataru Industrial Estate,
Off G.B. Road, Near 'R-Mall' , Thane (W) - 400607. M.S. INDIA.
Ph: +91-22-25895505, 4760, 4681. Cell: 9320126789.

Email: micromaster@micromasterlab.com
sales@micromasterlab.com

Prepared By	Checked By	Approved By
 01.01.2018	 01.01.2018	 01.01.2018
Microbiologist	Head Quality Control	Head Quality Assurance

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