

# Instructions for Use

## MARTIN LEWIS WITH LINCOMYCIN

<a href="#">Cat. no. E39</a>	Martin Lewis with Lincomycin, 15x100mm Plate, 19ml	10 plates/bag
<a href="#">Cat. no. J44</a>	Chocolate / Martin Lewis with Lincomycin, 15x100mm Biplate, 10ml/10ml	10 plates/bag

### INTENDED USE

Hardy Diagnostics Martin Lewis with Lincomycin is a selective medium for the recovery of *Neisseria gonorrhoeae* from both genital and oropharyngeal specimens.

### SUMMARY

Several successive media have been developed for the isolation of pathogenic *Neisseria* from specimens containing mixed flora. Each successive formula, Thayer Martin Selective Agar, Modified Thayer Martin and Martin Lewis Agar, provides greater inhibition of contaminating flora, however, each has been shown to be inhibitory to certain vancomycin sensitive strains of *Neisseria* spp. Martin Lewis Agar with Lincomycin provides a rich, selective growth media with decreased vancomycin.

### FORMULA

Ingredients per liter of deionized water:\*

Hemoglobin, Bovine	10.0gm
Pancreatic Digest of Casein	7.5gm
Peptic Digest of Animal Tissue	7.5gm
Sodium Chloride	5.0gm
Dipotassium Phosphate	4.0gm
Monopotassium Phosphate	1.0gm
Corn Starch	1.0gm
Colistin	7.5mg
Trimethoprim Lactate	5.0mg
Vancomycin	2.0mg
Amphotericin B	1.5mg
Lincomycin	1.0mg
Koenzyme Enrichments	10.0ml

Final pH 7.2 +/- 0.2 at 25°C.

\* Adjusted and/or supplemented as required to meet performance criteria.

## STORAGE AND SHELF LIFE

Storage: Upon receipt store at 2-8°C. away from direct light. Media should not be used if there are any signs of deterioration (shrinking, cracking, or discoloration), hemolysis, contamination, or if the expiration date has passed. Product is light and temperature sensitive; protect from light, excessive heat, moisture, and freezing.

The expiration date on the product label applies to the product in its intact packaging when stored as directed. The product may be used and tested up to the expiration date on the product label and incubated for the recommended incubation times as stated below.

Refer to the document "[Storage](#)" for more information.

## PRECAUTIONS

This product may contain components of animal origin. Certified knowledge of the origin and/or sanitary state of the animals does not guarantee the absence of transmissible pathogenic agents. Therefore, it is recommended that these products be treated as potentially infectious, and handle observing the usual Universal Precautions for blood. Do not ingest, inhale, or allow to come into contact with skin.

This product is for *in vitro* diagnostic use only. It is to be used only by adequately trained and qualified laboratory personnel. Observe approved biohazard precautions and aseptic techniques. All laboratory specimens should be considered infectious and handled according to "standard precautions." Refer to the document "[Guidelines for Isolation Precautions](#)" from the Centers for Disease Control and Prevention.

For additional information regarding specific precautions for the prevention of the transmission of all infectious agents from laboratory instruments and materials, and for recommendations for the management of exposure to infectious disease, refer to CLSI document M29: *Protection of Laboratory Workers from Occupationally Acquired Infections*.

Sterilize all biohazard waste before disposal.

Refer to the document "[Precautions When Using Media](#)" for more information.

## PROCEDURE

Specimen Collection: Specimens should be submitted directly to the laboratory without delay and protected from excessive heat and cold. If there is to be a delay in processing, specimens should be inoculated into an appropriate transport such as Amies with charcoal. Specimens must be transported at ambient temperatures (15-30°C). Do not refrigerate. Refer to listed references for more information on specimen collection and transport.<sup>(1-3)</sup>

Method of Use: Bring media to room temperature before use. Inoculate media and streak to obtain isolated colonies. Incubate 24-48 hours at 35°C. in 5-10% CO<sub>2</sub>. Some strains may require up to 72 hours to appear.

## INTERPRETATION OF RESULTS

*Neisseria gonorrhoeae* appears as small, grayish-white to colorless mucoid colonies. *N. meningitidis* forms similar colonies to *N. gonorrhoeae*, but larger and blue-gray.

An oxidase test may be performed from the primary plate for presumptive identification.

## LIMITATIONS

This medium is intended for primary isolation. Some diagnostic tests may be performed with the primary plate. However, additional tests including gram stain and biochemical testing should be performed on pure cultures for complete identification. For more information, see appropriate references.

The agents in selective media may inhibit some strains of desired species or permit the growth of species they were designed to inhibit. Therefore, specimens cultured on selective media should also be cultured on non-selective media to obtain additional information and to help insure recovery of potential pathogens.

Refer to the document "[Limitations of Procedures and Warranty](#)" for more information.

## MATERIALS REQUIRED BUT NOT PROVIDED

Standard microbiological supplies and equipment such as loops, other culture media, swabs, applicator sticks, incinerators, and incubators, etc., as well as serological and biochemical reagents, are not provided.

## QUALITY CONTROL

Hardy Diagnostics tests each lot of commercially manufactured media using appropriate quality control microorganisms and quality specifications as outlined on the Certificate of Analysis (CofA) and the CLSI document M22-A3 *Quality Assurance for Commercially Prepared Microbiological Culture Media*. The following microorganisms are routinely used for testing at Hardy Diagnostics:

Test Organisms	Inoculation Method*	Incubation			Results
		Time	Temperature	Atmosphere	
<i>Neisseria gonorrhoeae</i> ATCC® 43069	A	24-48hr	35°C	CO <sub>2</sub> **	Growth
<i>Neisseria meningitidis</i> ATCC® 13090***	A	24-48hr	35°C	CO <sub>2</sub> **	Growth
<i>Proteus mirabilis</i> ATCC® 43071	B	24-48hr	35°C	CO <sub>2</sub> **	Partial to complete inhibition, no swarming
<i>Staphylococcus epidermidis</i> ATCC® 12228	B	24-48hr	35°C	CO <sub>2</sub> **	Partial to complete inhibition
<i>Escherichia coli</i> ATCC® 25922***	B	24-48hr	35°C	CO <sub>2</sub> **	Partial to complete inhibition
<i>Candida albicans</i> ATCC® 60193***	B	24-48hr	35°C	CO <sub>2</sub> **	Partial to complete inhibition
<i>Neisseria sicca</i> ATCC® 9913***	B	24-48hr	35°C	CO <sub>2</sub> **	Inhibited

\* Refer to the document "[Inoculation Procedures for Media QC](#)" for more information.

## USER QUALITY CONTROL

End users of commercially prepared culture media should perform QC testing in accordance with applicable government regulatory agencies, and in compliance with accreditation requirements. Hardy Diagnostics recommends end users check for signs of contamination and deterioration and, if dictated by laboratory quality control procedures or regulation, perform quality control testing to demonstrate growth or a positive reaction and to demonstrate inhibition or a negative reaction, if applicable. Hardy Diagnostics quality control testing is documented on the certificate of analysis (CofA) available from Hardy Diagnostics [Certificate of Analysis](#) website. Also refer to the document "[Finished Product](#)

[Quality Control Procedures](#)," and the CLSI document M22-A3 *Quality Assurance for Commercially Prepared Microbiological Culture Media* for more information on the appropriate QC procedures. See the references below.

## REFERENCES

1. Jorgensen., et al. *Manual of Clinical Microbiology*, American Society for Microbiology, Washington, D.C.
2. Tille, P., et al. *Bailey and Scott's Diagnostic Microbiology*, C.V. Mosby Company, St. Louis, MO.
3. Isenberg, H.D. *Clinical Microbiology Procedures Handbook*, Vol. I, II & III. American Society for Microbiology, Washington, D.C.
4. Anderson, N.L., et al. *Cumitech 3B; Quality Systems in the Clinical Microbiology Laboratory*, Coordinating ed., A.S. Weissfeld. American Society for Microbiology, Washington, D.C.
5. *Quality Assurance for Commercially Prepared Microbiological Culture Media*, M22. Clinical and Laboratory Standards Institute (CLSI - formerly NCCLS), Wayne, PA.
6. Evans, G.L., et al. 1989. New selective medium for the isolation of *Neisseria gonorrhoeae*. *J. Clin. Microbiol.*; 27:2471-2474.

ATCC is a registered trademark of the American Type Culture Collection.

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