IFU

HARDY DIAGNOSTICS
A Culture of Service™

Instructions for Use

CRITERION™ LURIA AGAR BASE, MILLER

Cat. no. C6310	CRITERION™ Luria Agar Base, Miller	61gm
Cat. no. C6311	CRITERION™ Luria Agar Base, Miller	500gm
Cat. no. C6312	CRITERION™ Luria Agar Base, Miller	2kg
Cat. no. C6313	CRITERION™ Luria Agar Base, Miller	10kg
Cat. no. C6314	CRITERION™ Luria Agar Base, Miller	50kg

INTENDED USE

Hardy Diagnostics CRITERION™ Luria Agar Base, Miller is used for maintaining and propagating *Escherichia coli* in molecular microbiology procedures with or without added glucose.

This dehydrated culture medium is a raw material intended to be used in the making of prepared media products, which will require further processing, additional ingredients, or supplements.

SUMMARY

CRITERION™ Luria Agar Base, Miller is a nutritionally rich medium designed for growth of pure cultures of recombinant strains, is based on the Luria Broth formula described by Miller.[1]

E. coli is grown to late log phase in LB Medium. *Escherichia coli* is grown of pure cultures on LB Medium. Some plasmid vectors may replicate to a high copy number and do not require selective amplification. Chloramphenicol may be added to inhibit host synthesis and as a result, prevent replication of the bacterial chromosome.[2]

Luria Agar Base, Miller contains one tenth and one twentieth the sodium chloride level of the LB Agar, Lennox and LB Agar, Miller formulations.[1-3] This allows the researcher to select the optimal salt concentration for a specific strain. The medium may be aseptically supplemented with glucose if desired.

Peptides and peptones are provided by pancreatic digest of casein. Vitamins, including B vitamins, and certain trace elements are provided by yeast extract. Sodium ions for transport and osmotic balance are provided by sodium chloride. Agar is the solidifying agent.

FORMULA

Gram weight per liter:	30.5gm/L
Pancreatic Digest of Casein	10.0gm
Yeast Extract	5.0gm
Sodium Chloride	0.5gm

Agar	15.0gm

Final pH 7.0 +/- 0.2 at 25ºC.

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

STORAGE AND SHELF LIFE

Store the sealed bottle(s) containing culture medium at 2-30ºC. Dehydrated culture medium is very hygroscopic. Keep lid tightly sealed. Protect dehydrated culture media from moisture and light. The dehydrated culture media should be discarded if it is not free-flowing or if the color has changed from its original light tan.

Store the prepared culture media at 2-8ºC.

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 blood precautions. Do not ingest, inhale, or allow to come into contact with skin.

This product is for laboratory 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.

METHOD OF PREPARATION FOR DEHYDRATED CULTURE MEDIA

1. Suspend 30.5gm of the dehydrated culture media in 1 liter of distilled or deionized water.

2. Heat to boiling and mix to dissolve completely.

3. Sterilize in the autoclave at 121ºC. for 15 minutes.

4. Cool to 45-50ºC. and aseptically add 10ml sterile 20% glucose solution and mix thoroughly.

5. Dispense into sterile petri dishes.

PROCEDURE AND INTERPRETATION OF RESULTS

For information on procedures and interpretation of results, consult listed references.

LIMITATIONS

It is recommended that biochemical, immunological, molecular, or mass spectrometry testing be performed on colonies from pure culture for complete identification.

Some formulations may require a settling period before pH testing of the prepared medium. If the pH is tested immediately after preparation and is out of specification, retest the medium after 24 hours to obtain final pH results. Always take pH reading at room temperature.

Refer to the document "Limitations of Procedures and Warranty" for more information.

MATERIALS REQUIRED BUT NOT PROVIDED

Standard microbiological supplies and equipment such as autoclaves, incinerators, and incubators, etc., 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	
Escherichia coli ATCC® 25922	A	18-24hr	35°C	Aerobic	Growth

* Refer to the document "Inoculation Procedures for Media QC" for more information.

USER QUALITY CONTROL

Users of dehydrated 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. In addition, refer to the following document "Finished Product Quality Control Procedures," for more information on QC or see the reference(s) for more specific information.

PHYSICAL APPEARANCE

CRITERION™ Luria Agar Base, Miller powder should appear homogeneous, free-flowing, and light tan in color. The prepared media should appear slightly opalescent, and very light amber in color.

REFERENCES

1. Miller, J.H. 1972. *Experiments in Molecular Genetics*. Cold Spring Harbor Laboratory, Cold Spring Harbor, New York.

2. Sambrook, J., E.F. Fritsch, and T. Maniatis. 1989. *Molecular Cloning: A Laboratory Manual*, 2nd ed. Cold Spring Harbor Laboratory, Cold Spring Harbor, New York.

3. Lennox, E.S. 1955. *Transduction of Linked Genetic Characters of the Host By Bacteriophage P1*. Virology; 1:190-206.

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

IFU-10191[A]

1430 West McCoy Lane, Santa Maria, CA 93455, USA
Phone: (805) 346-2766 ext. 5658
Fax: (805) 346-2760
Website: HardyDiagnostics.com
Email: TechnicalServices@HardyDiagnostics.com
Ordering Information

Distribution Centers:
California · Washington · Utah · Arizona · Texas · Ohio · New York · Florida · North Carolina

The Hardy Diagnostics manufacturing facility and quality management system is certified to ISO 13485.

HDQA 2207B [D]