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Instructions for Use

CRITERION™ DEOXYCHOLATE LACTOSE AGAR

Cat. no. C5560	CRITERION™ Deoxycholate Lactose Agar	85gm
Cat. no. C5561	CRITERION™ Deoxycholate Lactose Agar	500gm
Cat. no. C5562	CRITERION™ Deoxycholate Lactose Agar	2kg
Cat. no. C5563	CRITERION™ Deoxycholate Lactose Agar	10kg

INTENDED USE

Hardy Diagnostics CRITERION™ Deoxycholate Lactose Agar is recommended for the isolation and differentiation of gram-negative enteric bacteria. Also used for the enumeration of coliforms from water, wastewater, milk, and dairy products.[2-4]

SUMMARY

CRITERION™ Deoxycholate Lactose Agar, is a modification of Deoxycholate agar as described by Leifson[1] for the selective isolation and enumeration of intestinal pathogens. This medium contains citrate and sodium deoxycholate making it selective against gram-positive organisms. The addition of lactose to the medium makes it differential for coliforms based on lactose fermentaion.

FORMULA*

Gram weight per liter:	42.5gm/L
Lactose	10.0gm
Protease Peptone No. 3	5.0gm
Meat Peptone	5.0gm
Sodium Chloride	5.0gm
Sodium Citrate	2.2gm
Sodium Deoxycholate	0.5gm
Sodium Carbonate	0.1gm
Neutral Red	18.0mg
Agar	14.7gm

Final pH 7.1 +/- 0.2 at 25ºC.

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

STORAGE AND SHELF LIFE

Store the sealed bottle(s) containing dehydrated 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, homogeneous light beige/pink,

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 42.5gm of the dehydrated culture media in one liter of distilled or deionized water. Stir and heat to mix thoroughly.

2. Heat to boiling to dissolve completely. Avoid overheating. **Do Not Autoclave.**

3. Cool to 45-50ºC. and aseptically dispense into sterile containers.

PROCEDURE

Test samples using either the spread plate or pour plate technique as described in the literature.[2-4]

Incubate at 35-37ºC. for 18-24 hours. Observe plates for the presence of lactose fermentation.

INTERPRETATION OF RESULTS

Organisms which ferment lactose will appear as red colonies, non-lactose fermenters form colorless colonies. Coliform bacteria will produce pink colonies.

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	24hr	35°C	Aerobic	Growth, pink to red colonies with bile precipitate surrounding colonies
Klebsiella pneumoniae ATCC® 13883	A	24hr	35°C	Aerobic	Growth, pink to red colonies
Shigella flexneri ATCC® 12022	A	24hr	35°C	Aerobic	Growth, colorless colonies
Salmonella enterica ATCC® 14028	A	24hr	35°C	Aerobic	Growth, colorless colonies
Enterococcus faecalis ATCC® 29212	B	24hr	35°C	Aerobic	Partial to complete inhibition
Staphylococcus aureus ATCC® 6538	B	24hr	35°C	Aerobic	Partial to complete inhibition

* 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™ Deoxycholate Lactose Agar powder should appear homogeneous, free-flowing, and pink/beige in color. The prepared medium should appear slightly opalescent, and pinkish-red in color.

REFERENCES

1. Leifson. 1935. New culture media based on sodium desoxycholate for the isolation of intestinal pathogens and for the enumeration of colon bacilli in milk and water. *J. Path. Bact.* 40:581.

2. American Public Health Association. *Standard Methods for the Examination of Water and Wastewater*, APHA, Washington, D.C.

3. American Public Health Association. *Standard Methods for the Examination of Dairy Products*, APHA, Washington, D.C.

4. Speck M. (Ed.), 1984, Compendium of Methods for the Microbiological Examination of Foods, 2nd ed., APHA, Washington, D.C.

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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]