

Instructions for Use

CRITERION™ BRILLIANT GREEN AGAR

Cat. no. C5240	CRITERION™ Brilliant Green Agar	116gm
Cat. no. C5241	CRITERION™ Brilliant Green Agar	500gm
Cat. no. C5242	CRITERION™ Brilliant Green Agar	2kg
Cat. no. C5243	CRITERION™ Brilliant Green Agar	10kg
Cat. no. C5244	CRITERION™ Brilliant Green Agar	50kg

INTENDED USE

Hardy Diagnostics CRITERION™ Brilliant Green Agar is recommended for the selective enrichment of *Salmonella* spp. other than *Salmonella Typhi* and *Salmonella Paratyphi*.

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

Kristensen et al., in 1925, first described use of Brilliant Green Agar as a primary plating medium for the isolation of *Salmonella* spp.⁽⁸⁾ Kauffman modified the formula in 1935.⁽⁹⁾

The current formulation incorporates phenol red as the pH indicator and brilliant green as an inhibitory agent that acts against gram-positive organisms and gram-negative bacilli. Organisms that ferment lactose and/or sucrose exhibit yellow to yellow-green colonies surrounded by a yellow-green zone. *Salmonella* appears as red to pink-white colonies surrounded by a red zone in the medium.

CRITERION™ Brilliant Green Agar is not recommended for the selective isolation of *Salmonella Typhi*.

FORMULA

Gram weight per liter:	58.0gm/L
Lactose	10.0gm
Sucrose	10.0gm
Sodium Chloride	5.0gm
Pancreatic Digest of Casein	5.0gm
Peptic Digest of Animal Tissue	5.0gm
Yeast Extract	3.0gm

Phenol Red	0.08gm
Brilliant Green	12.5mg
Agar	20.0gm

Final pH 6.9 +/- 0.2 at 25°C.

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

STORAGE AND SHELF LIFE

Store the sealed bottle(s) containing dehydrated culture medium at 2-30°C. 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 beige.

Store the prepared tubed media at 2-30°C. Plated media should be stored at 2-8 degrees C.

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 58.0gm 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 121°C. for 15 minutes.

PROCEDURE AND INTERPRETATION OF RESULTS

For information on procedures and interpretation of results, consult list of references or refer to the prepared media Instructions for Use (IFU) for Cat. No. G75.

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.

The recovery of many *Salmonella* spp. is greatly jeopardized if stool specimens remain unpreserved for more than three hours before processing. If there is to be a delay in processing, the specimen should be inoculated onto an appropriate transport medium in order to maintain viability of the organisms.

Color variations from red to pink-white may occur in colonies of *Salmonella* spp. Variations in color are dependent upon the length of incubation and the strain of the organism.

Other non-lactose-fermenting or slow lactose-fermenting organisms may grow on the agar and imitate the enteric pathogens.

Brilliant Green Agar is not recommended for isolation of *Salmonella Typhi*, *Salmonella Paratyphi*, and *Shigella* spp.

The medium will become discolored if exposed to light.

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	
<i>Salmonella enterica</i> ATCC® 14028	A	18-24hr	35°C	Aerobic	Growth; red to pink-white colonies with red zones
<i>Escherichia coli</i> ATCC® 25922	B	18-24hr	35°C	Aerobic	Partial to complete inhibition; small yellow to yellow-green colonies

* 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™ Brilliant Green Agar powder should appear homogeneous, free-flowing, and light beige in color. The prepared media should appear slightly opalescent, and brownish-orange in color.

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. MacFaddin, J.F. 1985. *Media for Isolation, Cultivation, Identification, Maintenance of Bacteria*, Vol. I. Williams & Wilkins, Baltimore, MD.
5. *Quality Assurance for Commercially Prepared Microbiological Culture Media*, M22. Clinical and Laboratory Standards Institute (CLSI - formerly NCCLS), Wayne, PA.
6. Koneman, E.W., et al. *Color Atlas and Textbook of Diagnostic Microbiology*, J.B. Lippincott Company, Philadelphia, PA.
7. Sack, R.B., et al. 1980. *Cumitech 12*; American Society for Microbiology, Washington, D.C.
8. Kristensen, M., et al. 1925. *Br. J. Exp. Pathol.*; 6:291.
9. Kauffman, F. 1935. *Z. Hyg. Infektionskr.*; 117:26.

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

IFU-10125[A]



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[Ordering Information](#)

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