

Instructions for Use

CRITERION™ STANDARD METHODS AGAR

Cat. no. C6980	CRITERION™ Standard Methods Agar	38.0gm
Cat. no. C6981	CRITERION™ Standard Methods Agar	500gm
Cat. no. C6982	CRITERION™ Standard Methods Agar	2kg
Cat. no. C6983	CRITERION™ Standard Methods Agar	10kg

INTENDED USE

Hardy Diagnostics CRITERION™ Standard Methods Agar is recommended for use in determining the microbial content in dairy products, food, water samples, and other material of sanitary importance.

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

Standard Methods Agar is a modified formulation of Tryptone Glucose Skim Milk Agar that was developed by Bowers and Hucker.⁽⁵⁾ Yale showed that this modified version is more effective in plate count procedures on milk and dairy products.

CRITERION™ Standard Methods Agar is equivalent to the formulation of Plate Count Agar (Tryptone Glucose Yeast Agar) as listed in *Standard Methods for the Examination of Water and Wastewater*, 18th ed., AOAC, and USP.⁽¹⁻⁴⁾ The American Public Health Association (APHA) recommends use of the medium for performing the "standard plate count" on dairy products.⁽⁶⁾

Bacterial growth nutrients are provided by peptone, yeast extract, and glucose. B-complex vitamins are primarily supplied by yeast extracts. Glucose serves as an energy source. These nutrients, together with the nutrient factors present in the dairy products to be evaluated will support the growth of the majority of organisms found in the dairy samples.

FORMULA*

Gram weight per liter:	23.5gm/L
Pancreatic Digest of Casein	5.0gm
Yeast Extract	2.5gm
Glucose	1.0gm
Agar	15.0gm

Final pH 7.0 +/- 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 plated media at 2-8°C. Store the prepared tubed and/or bottled media at 2-30°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 19.0gm 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 listed references or refer to the prepared media Instructions for Use (IFU) for Cat. No. G43.

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	
<i>Staphylococcus aureus</i> ATCC® 25923	A	24-48hr	35°C	Aerobic	Growth
<i>Escherichia coli</i> ATCC® 25922	A	24-48hr	35°C	Aerobic	Growth
<i>Enterococcus faecalis</i> ATCC® 29212	A	24-48hr	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™ Standard Methods Agar powder should appear homogeneous, free-flowing, and light beige in color. The prepared media should appear slightly opalescent, and light amber in color.

REFERENCES

1. American Public Health Association. *Standard Methods for the Examination of Water and Wastewater*, APHA, Washington, D.C.
2. Association of Official Agricultural Chemists. 10th ed. p. 737; 1965.
3. Association of Official Analytical Chemists. *Official Methods of Analysissm*, AOAC, Washington, D.C.
4. The Official Compendia of Standards. 2008. *USP27-NF22*. United States Pharmacopeial Convention, Rockville,

MD.

5. Bowers and Hucker. 1944. *Tech. Bull.*; p. 228. N.Y. State Exp. Station.
6. American Public Health Association. *Standard Methods for the Examination of Dairy Products*, APHA, Washington, D.C.
7. APHA Technical Committee on Microbiological Methods for Foods. *Compendium of Methods for the Microbiological Examination of Foods*, APHA, Washington, D.C.
8. U.S. Food and Drug Administration. *Bacteriological Analytical Manual*. AOAC, Arlington, VA.
<http://www.fda.gov/Food/FoodScienceResearch/LaboratoryMethods/ucm2006949.htm>.

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

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[Ordering Information](#)

Distribution Centers:

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