

Instructions for Use

CRITERION™ BAIRD-PARKER AGAR BASE

Cat. no. C5080	CRITERION™ Baird-Parker Agar Base	126gm
Cat. no. C5081	CRITERION™ Baird-Parker Agar Base	500gm
Cat. no. C5082	CRITERION™ Baird-Parker Agar Base	2kg
Cat. no. C5083	CRITERION™ Baird-Parker Agar Base	10kg
Cat. no. C5084	CRITERION™ Baird-Parker Agar Base	50kg

INTENDED USE

Hardy Diagnostics CRITERION™ Baird-Parker Agar Base is prepared with Egg Yolk Tellurite Enrichment for a selective medium for the detection and enumeration of coagulase-positive staphylococci from food samples.⁽¹⁾

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

Baird-Parker Medium was developed by Baird-Parker to isolate and enumerate coagulase-positive staphylococci from foods.⁽³⁾ The present formulation, by Baird-Parker, is a modification from a previous formula developed by Zebovitz, Evan, and Niven.⁽⁴⁾ Sodium pyruvate was added as a selective growth stimulant, and egg yolk emulsion as a differentiation agent. The medium allows growth of *Staphylococcus aureus* and selectively inhibits growth of most other bacteria.

Selective inhibition is thought to be caused by the combination of the selective agents tellurite and lithium. Glycine and pyruvate are added to enhance the growth of staphylococci.

After 24 to 48 hours of incubation at 35-37°C., colonies of *S. aureus* will appear black, convex, shiny, and 1-1.5mm in diameter. The very distinct black colonies formed by *S. aureus* are a result of the reduction of tellurite in the medium. These colonies will normally be surrounded by clear zones, a result of proteolysis or lipolysis. Occasionally, opaque zones will form within this clear zone, a result of lipase or lecithinase activity. Other bacteria which may grow on this medium are easily distinguished from *S. aureus*, as they do not form black colonies.

FORMULA*

Baird-Parker Agar Base:	
Gram weight per 940ml:	63.0gm
Glycine	12.0gm
Pancreatic Digest of Casein	10.0gm

Sodium Pyruvate	10.0gm
Beef Extract	5.0gm
Lithium Chloride	5.0gm
Yeast Extract	1.0gm
Agar	20.0gm

Egg Yolk Tellurite Enrichment:	
Egg Yolk Emulsion	50.0ml/L
Potassium Tellurite Solution, 1%	10.0ml/L

Final pH 7.0 +/- 0.2 at 25°C./p>

* 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 tan.

Store the prepared culture media at 2-8°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

Procedure using 1% Potassium Tellurite Solution and Egg Yolk Emulsion:

1. Suspend 63.0gm of the dehydrated culture media in 940.0ml 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.
4. Cool to 45-50°C.
5. Aseptically add 10mL of a sterile 1% potassium tellurite solution and 50.0mL of sterile egg yolk emulsion.

Procedure using Cat. No. R450330 Egg Yolk Tellurite Solution:

NOTE: Cat. No. R450330 must be made into a 20% solution using sterile water prior to use.

1. Suspend 63.0gm of the dehydrated culture media in 950.0ml 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.
4. Cool to 45-50°C.
5. Aseptically add 50mL of the 20% Cat. No. R450330 Egg Yolk Tellurite Solution.

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. G96.

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.

Coagulase-negative staphylococci generally do not grow well on Baird-Parker Agar; if some growth occurs, the typical clear zones are absent. *Proteus* or *Bacillus* species may also grow but appear as brown colonies.

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	24hr	35°C	Aerobic	Growth; black shiny colonies with clear halo
<i>Proteus mirabilis</i> ATCC® 12453	A	24hr	35°C	Aerobic	Growth; brown colonies
<i>Escherichia coli</i> ATCC® 25922	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™ Baird-Parker Agar Base powder should appear homogeneous, free-flowing, and light tan in color. The prepared media, with supplement, should appear opaque, and light yellow in color.

REFERENCES

1. AOAC. *Association of Official Analytical Chemists, Official Methods of Analysis*, AOAC, Washington, D.C.
2. Baird-Parker. 1962. *J. Appl. Bact.*; 25:12.
3. Jorgensen., et al. *Manual of Clinical Microbiology*, American Society for Microbiology, Washington, D.C.
4. Zebovitz, Evan, et al. 1955. *J. Bact.*; 70:686.

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

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[Ordering Information](#)

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