BIOMÉRIEUX

REF **M1027**

9313015 B – 2016-10 EN

Standard Methods Agar

INTENDED USE
Standard Methods Agar, also known as Plate Count Agar and Tryptone Glucose Yeast Agar, is used for determining microbial plate counts from food, dairy, water, cosmetic, and other environmental samples.

SUMMARY AND EXPLANATION
The formulation for Standard Methods Agar was developed by Buchbinder, Baris, and Goldstein[1] and approximated the productivity of Tryptone Glucose Extract Agar with added milk. Buchbinder et al. recommended that a dehydrated culture medium be used in preparing the standard plate count medium rather than preparing the medium from individual ingredients.

Standard Methods Agar is recommended for use when performing plate counts on food,[2-7] dairy,[8] water,[9] cosmetic,[10] and other environmental samples.

PRINCIPLE OF THE TEST
Enzymatic digest of casein is an excellent source of nitrogen, amino acids, and peptides necessary to support bacterial growth. Yeast Extract is a source of trace elements, vitamins and amino acids. Dextrose is a source of carbon for the microorganisms. Agar is the solidifying agent.

COMPOSITION
*Approximate, per liter of purified water.

Standard Methods Agar

Enzymatic Digest of Casein	5.0 g
Yeast Extract	2.5 g
Dextrose	1.0 g
Agar	15.0 g

Final pH 7.0 ± 0.2 at 25°C

*Adjusted and/or supplemented to meet performance standards.

ADDITONAL MATERIALS REQUIRED BUT NOT PROVIDED
Standard supplies and equipment commonly found in a microbiology laboratory are not provided.

STORAGE CONDITIONS
Upon receipt, store plates at 2-8°C away from direct light in an inverted position. Store bottles and tubes according to the package label in an upright position. Do not freeze. Media should not be used if there are signs of contamination, deterioration (i.e., shrinking, cracking, or discoloration), or if the expiration date has passed. Store plates in original outer wrapping until ready to use.

Media can be inoculated up to the expiration date and incubated for the appropriate incubation period.

WARNINGS AND PRECAUTIONS
1. For laboratory use only.
2. Observe approved biohazard precautions. All samples, microbial cultures, and inoculated products should be considered infectious and handled appropriately.
3. Aseptic technique and usual precautions for handling the bacterial group studied should be observed throughout this procedure. Refer to the latest edition of *Biosafety in Microbiological and Biomedical Laboratories*[11] or the current regulations in the country of use.
4. This culture medium should not be used as manufacturing material or as a component of a drug.

SPECIMENS
Samples should be collected using appropriate techniques, protected from extreme heat and cold, and delivered to the laboratory without delay. Follow procedures currently recommended in standard methods for collection of samples when testing food, dairy, water, cosmetic, and other environmental samples.[2-10]

INSTRUCTIONS FOR USE
1. Prior to inoculation, the media should be brought to room temperature. The agar surface should be flat and moist without excessive moisture.
2. Refer to appropriate references for details on test methods using Standard Methods Agar.[2-10]
3. *For melting bottled or tubed media*, loosen caps and place in boiling water bath (100°C) until melted. The water level in the bath should reach the media line. Once melted, cool media to 45-50°C before use.

Note: Use of a microwave oven to melt tubed and bottled media is not recommended.

READING AND INTERPRETATION
Refer to appropriate references for details on plate count methods.[2-10]

QUALITY CONTROL
Prepared Appearance

Light to medium amber, clear to slightly hazy

Cultural Response

Inoculate and incubate plates aerobically at 35 ± 2°C for 18-24 hours.

Microorganism	ATCC® No.	Inoculum CFU	Expected Results
Staphylococcus aureus	6538™	≤100	Growth
Escherichia coli	8739™	≤100	Growth
Pseudomonas aeruginosa	9027™	≤100	Growth
Enterococcus faecalis	29212™	≤100	Growth

LIMITATIONS OF THE METHOD
1. For identification, organisms must be in pure culture. Perform biochemical/serological tests for complete identification. Consult appropriate references for further information.[12-14]
2. Due to the varying nutritional requirements of each individual organism, certain strains which have specific requirements, such as substrate or temperature, may be encountered that grow poorly or fail to grow.

WASTE DISPOSAL
Unused products may be considered as non-hazardous waste and disposed of accordingly.

Dispose of all used products as well as any other contaminated disposable materials following procedures for infectious or potentially infectious products. It is the responsibility of each laboratory to handle waste and effluents produced according to their nature and degree of hazardousness and to treat and dispose of them (or have them treated and disposed of) in accordance with any applicable regulations.

REFERENCES

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14. Forbes, B.A., D.F. Sahm and A.S. Weissfeld. 2007. *Bailey and Scott's diagnostic microbiology*, 12th ed. Mosby, Inc., St. Louis, MO.

INDEX OF SYMBOLS

Symbol	Meaning
REF	Catalogue number
	Legal manufacturer
	Temperature limitation
	Use by date
LOT	Batch code
	Consult Instructions for Use

WARRANTY

bioMérieux warrants the performance of the product for its stated intended use provided that all procedures for usage, storage and handling, shelf life (when applicable), and precautions are strictly followed as detailed in the instructions for use (IFU).

Except as expressly set forth above, bioMérieux hereby disclaims all warranties, including any implied warranties of merchantability and fitness for a particular purpose or use, and disclaims all liability, whether direct, indirect or consequential, for any use of the reagent, software, instrument and disposables (the "System") other than as set forth in the IFU.

CONTENT

Prepared Media		
REF	Name	Units/ Pkg
M1027	Standard Methods Agar, Monoplate, Aseptic Fill, 100 mm, 20 mL	10

Instructions for Use provided in the kit or downloadable from www.biomerieux.com/techlib

REVISION TABLE

This section contains a summary of changes made to each released revision of this document starting with part number 9303357A.

Release Date	Part Number	Change Type	Change Summary
2012-03	9303357 A	N/A	Creation of new document
2016-10	9313015 B	Content Change	Removed obsolete product REFs P1071 and T8057-C under Content, replaced previous warranty statement with current warranty language, added technical library link, added revision table.

NOTE: Minor typographical, grammar, and formatting changes are not included in the revision history.

Change Type categories:

- **Correction** = Correction of documentation anomalies.
- **Content Change** = Implementation of new and modified (updated) intended use and performance characteristics.
- **Administrative** = Implementation of non-technical changes noticeable to the user.
- **N/A** = Not applicable.

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