



PRODUCT SPECIFICATION SHEET

Ayers & Johnson Agar (Stock Culture Agar) (DM591)

Intended Use

Ayers and Johnson Agar (Stock Culture Agar) is recommended for the maintenance of cultures of Streptococci and other pathogenic and non pathogenic microorganisms.

Product Summary and Explanation

Stock Culture Agar was originally formulated by Ayers and Johnson (1). They observed that in addition to supporting luxuriant growth, the medium also helped in maintaining the viability of Streptococci and various other organisms over a long period of time. They also observed that Streptococci maintained their viability for as long as four months when incubated in this medium at room temperature (25°C). Many fastidious organisms like *Mycobacterium* species, *S. pneumoniae*, show good growth on this medium. It can be made especially suitable for maintenance of Streptococci by the additions of L- Asparagine (1g/l) (2). Stock Culture Agar serves its main purpose (i.e. maintaining viability) chiefly due to its semisolid nature, a well-buffered environment. Maintenance medium are essentially designed to maintain the viability of cultures over an extended period of time.

Principles of the Procedure

The presence of casein and dextrose, the latter, which serves as a source of energy. Infusion from beef heart, proteose peptone, gelatin and casein serve as sources of nitrogen, vitamins and amino acids. Dextrose is a carbon and energy source. Disodium phosphate serves as a buffering agent while sodium citrate acts as a preservative.

Formula / Liter

Ingredients	Gms / Liter
Beef heart, infusion from	500.000
Proteose peptone	10.000
Gelatin	10.000
Dextrose	0.500
Casein, purified	5.000
Disodium phosphate	4.000
Sodium citrate	3.000
Agar	7.500
Final pH: 7.5 ± 0.2 at 25°C	
Formula may be adjusted and/or supplemented as required to meet performance specifications	

Precautions

1. For Laboratory Use only.
2. IRRITANT. Irritating to eyes, respiratory system, and skin.
3. Freshly prepared plates should be used for antibiotic assays.
4. All conditions in the microbiological assay must be controlled carefully.
5. The use of standard culture medium in the test is one of the important steps for obtaining good results.
- 6.

Directions

1. Suspend 50 grams of the medium in one liter of distilled water.
2. Heat to boiling, to dissolve the medium completely. Dispense in tubes.
3. Autoclave at 121°C, 15 psi pressure, for 15 minutes / validated cycle.





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Quality Control Specifications

Dehydrated Appearance	Yellow to Beige homogeneous coarse powder
Prepared Medium	Light yellow coloured opalescent gel forms in tubes
Reaction of 5% solution	pH 7.5 ± 0.2 at 25°C
Gel Strength	Semisolid, comparable with 0.75% Agar gel and 1.0% Gelatin gel.

Expected Cultural Response: Cultural characteristics observed after an incubation at 35-37°C for 18-48 hours.

Sr. No.	Organisms	Results to be achieved			
		Inoculum (CFU)	Growth	Incubation temperature	Incubation Period
1.	<i>Neisseria meningitidis</i> ATCC 13090	50 -100	good-luxuriant	35-37°C	18 -48 hrs
2.	<i>Staphylococcus aureus</i> ATCC 25923	50 -100	good-luxuriant	35-37°C	18 -48 hrs
3.	<i>Streptococcus pneumoniae</i> ATCC 6303	50 -100	good-luxuriant	35-37°C	18 -48 hrs
4.	<i>Streptococcus pyogenes</i> ATCC 19615	50 -100	good-luxuriant	35-37°C	18 -48 hrs

The organisms listed are the minimum that should be used for quality control testing.

Results

Refer to appropriate references and specific test procedures.

Storage

Store the sealed bottle containing the dehydrated medium at 10 - 30°C. Once opened and recapped, place container in a low humidity environment at the same storage temperature. Protect from moisture and light.

Expiration

Refer to the expiration date stamped on the container. The dehydrated medium should be discarded if not free flowing, or if the appearance has changed from the original color. Expiry applies to medium in its intact container when stored as directed.

Packaging

Product Name : Ayers & Johnson Agar (Stock Culture Agar)

Product Code : DM591

Available Pack sizes : 100gm / 500gm

References

1. Ayers and Johnson, 1924, J. Bacteriol., 9:111.
2. Atlas R. M., 2004, Handbook of Microbiological Media, 3rd Ed., CRC Press, Inc., Boca Raton, Fla.





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Further Information

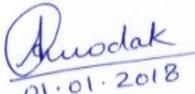
For further information please contact your local MICROMASTER Representative.



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