Schaedler Agar
SKU: 700003412, 700003413, 700003414, 700003415
NCM0154

Intended Use
Schaedler Agar is used for the cultivation of anaerobic microorganisms in a laboratory setting. Schaedler Agar is not intended for use in the diagnosis of disease or other conditions in humans.

Description
Survival of anaerobic bacteria is dependent on their sensitivity to oxygen, nutritional requirements, appropriate collection, culture medium, and incubation time and temperature. Schaedler Agar is suitable for standard procedures used in cultivating anaerobic bacteria.

Schaedler Agar is prepared according to the formulation described by Schaedler, Dubos, and Costello, and modified by Mata, Carrillo, and Villatoro. Modifications include reduced dextrose to avoid interference with hemolytic reactions, reduced yeast extract to avoid darkening of the medium, and adjusted sodium chloride and nitrogen concentrations.

Typical Formulation

Tryptic Soy Broth	10.0 g/L
Enzymatic Digest of Casein	2.5 g/L
Enzymatic Digest of Animal Tissue	2.5 g/L
Yeast Extract	5.0 g/L
Dextrose	5.0 g/L
Tris (hydroxymethyl) Aminomethane	3.0 g/L
Hemin	0.01 g/L
L-Cystine	0.4 g/L
Agar	13.5 g/L

Final pH: 7.6 ± 0.2 at 25°C
Formula is adjusted and/or supplemented as required to meet performance specifications.

Precaution
Refer to SDS

Preparation
1. Suspend 41.9 g of the medium in one liter of purified water.
2. Heat with frequent agitation and boil for one minute to completely dissolve the medium.
3. Autoclave at 121°C for 15 minutes.
4. Cool to 45-50°C.

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Quality Control Specifications

Dehydrated Appearance: Powder is homogeneous, free flowing, and light tan.

Prepared Appearance (Plain): Prepared medium is yellow-beige and clear to trace hazy.

Prepared Appearance (w/Blood): Prepared medium is opaque and red.

Expected Cultural Response: Cultural response on Schaedler Agar incubated anaerobically at 35 ± 2°C and examined for growth after 48 - 72 hours.

Microorganism	Approx. Inoculum (CFU)	Expected Results
Bacteroides fragilis ATCC® 25285	10 - 300	Growth
Clostridium perfringens ATCC® 13124	10 - 300	Growth

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

Test Procedure

Refer to standard methods for the examination of bacteria in food.

Results

Refer to appropriate references for results.

Expiration

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

Limitations of the Procedure

1. Due to nutritional variation, some strains may be encountered that grow poorly or fail to grow on this medium.
2. When supplemented with 5% blood, beta-hemolytic streptococci may produce a hemolytic reaction similar to alpha hemolysis because of the high dextrose concentration in Schaedler Agar.

Storage

Store dehydrated culture media at 2-30°C away from direct sunlight. Once opened and recapped, place container in a low humidity environment at the same storage temperature. Protect from moisture and light by keeping container tightly closed.

References

1. Balows, A., W. J. Hausler, Jr., K. L. Herrmann, H. D. Isenberg, and H. J. Shadmony (eds.). 1991. Manual of clinical microbiology, 5th ed. American Society for Microbiology, Washington, D.C.
2. Smith, L. D. S. 1975. The pathogenic anaerobic bacteria, 2nd ed. Charles C. Thomas, Springfield, Ill.
3. Isenberg, H. D. (ed.). 1992. Clinical microbiology procedures handbook. American Society for Microbiology, Washington, D.C.
4. Murray, P. R., E. J. Baron, M. A. Pfaller, F. C. Tenover, and R. H. Yolken (eds.). 1995. Manual of clinical microbiology, 6th ed. American Society for Microbiology, Washington, D.C.
5. Baron, E. J., L. R. Peterson, and S. M. Finegold. 1994. Bailey & Scott's diagnostic microbiology, 9th ed. Mosby-Year Book, Inc., St. Louis, MO.
6. Schaedler, R. W., R. Dubos, and R. Costello. 1965. The development of the bacterial flora in the gastrointestinal tract of mice. J. Exp. Med. 122:59.
7. Mata, L. J., C. Carrillo, and E. Villatoro. 1969. Fecal microflora in healthy persons in the preindustrial region. Appl. Microbiol. 17:596.
8. Association of Official Analytical Chemists. 1995. Bacteriological analytical manual, 8th ed. AOAC International, Gaithersburg, MD.
9. www.fda.gov/Food/ScienceResearch/LaboratoryMethods/BacteriologicalAnalytical manualBAM/default.htm.