Nutrient Agar (BAM)
SKU: 700003612, 700003613, 700003614, 700003615
NCM0269

Intended Use
Nutrient Agar (BAM) is used for the cultivation of a wide variety of microorganisms in a laboratory setting. Nutrient Agar is not intended for use in the diagnosis of disease or other conditions in humans.

Description
In the early 1900's, the American Public Health Association (APHA) suggested the formula of Nutrient Agar as a standard culture medium used in water testing. Nutrient Agar continues to be a widely used general purpose medium for growing non-fastidious microorganisms. If required, enrichments can be added to this medium. Nutrient Agar, modified by incorporating 4-methylumbelliferyl-β-D-glucuronide (MUG), is used for fluorogenic detection of *Escherichia coli*.

Nutrient Agar meets APHA and Association of Official Analytical Chemists (AOAC) standard methods. Nutrient Agar is specified in many standard methods procedures for the examination of food, dairy products, water, and other materials.

Typical Formulation

Peptone	5.0 g/L
Beef Extract	3.0 g/L
Agar	15.0 g/L

Final pH: 6.8 ± 0.2 at 25°C
Formula is adjusted and/or supplemented as required to meet performance specifications.

Precaution
Refer to SDS

Preparation
1. Suspend 23 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.

Quality Control Specifications
Dehydrated Appearance: Powder is homogeneous, free flowing, and beige.

Prepared Appearance: Prepared medium is trace hazy and light beige.

Expected Cultural Response: Cultural response on Nutrient Agar (BAM) at 35 ± 2°C after 18 - 24 hours incubation.

Microorganism	Approx. Inoculum (CFU)	Response
Bacillus subtilis ATCC® 9372	10 - 300	Growth
Escherichia coli ATCC® 25922	10 - 300	Growth
Salmonella typhimurium ATCC® 14028	10 - 300	Growth
Staphylococcus aureus ATCC® 25923	10 - 300	Growth
Streptococcus pneumoniae ATCC® 6305	10 - 300	Growth
Streptococcus pyogenes ATCC® 19615	10 - 300	Growth

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

Test Procedure
1. Inoculate medium with isolated colonies or a loopful of pure culture from broth. Streak for isolation.
2. Incubate aerobically at 35°C for 18 – 24 hours or longer if necessary.

Results
Good growth of non-fastidious organisms on Nutrient Agar (BAM) will appear as translucent colonies.

Expiration
Refer to expiration date stamped on the 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.

Limitation of the Procedure
Due to nutritional variation, some strains may be encountered that grow poorly or fail to grow on this medium.

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. American Public Health Association. 1917. Standard methods of water analysis, 3rd ed. American Public Health Association, Washington, D.C.
2. Eaton, A. D., L. S. Clesceri, and A. E. Greenberg (eds.). 2017. Standard methods for the examination of water and wastewater, 23rd ed. American Public Health Association, Washington, D.C.
3. Marshall, R. T. (ed.). 2004. Standard methods for the microbiological examination of dairy products, 17th ed. American Public Health Association, Washington, D.C.
4. Association of Official Analytical Chemists. 2016. Official methods of analysis of AOAC International, 20th ed. AOAC International, Arlington, VA.
5. Vanderzant, C., and D. F. Splittstoesser (eds.). 2015. Compendium of methods for the microbiological examination of foods, 4th ed. American Public Health Association, Washington, D.C.

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