

## 70148 Nutrient Agar

A general culture medium for less fastidious microorganisms as well as for permanent cultures. Add blood serum or other biological fluids if required.

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Ingredients	Grams/Litre
Meat extract	1.0
Yeast extract	2.0
Peptone	5.0
Sodium chloride	5.0
Agar	15.0
Final pH 7.4 +/- 0.2 at 25°C	

Store prepared media below 8°C, protected from direct light. Store dehydrated powder, in a dry place, in tightly-sealed containers at 2-25°C.

### Directions :

Suspend 28 g in 1 litre of distilled water. Bring to the boil to dissolve completely. Sterilize by autoclaving at 121°C for 15 minutes.

### Principle and Interpretation:

Nutrient medium is a general basic culture medium for less fastidious microorganisms. Meat extract, yeast extract and peptone provide nitrogen, vitamins, amino acids and carbon for growth. Sodium chloride ensure osmotic balance. Thus, when adding blood, as supplement the blood cells will not rupture. Addition of 10% different biological fluids such as blood, serum and egg yolk makes it suitable for the cultivation of related fastidious organism. Acc. to Gray et al. the addition of 0.05% potassium tellurite makes the Nutrient medium an excellent enrichment medium for *Listeria monocytogenes*.

Cultural characteristics after 24 hours at 35°C.

Organisms (ATCC)	Growth
<i>Escherichia coli</i> (25922)	good-luxuriant
<i>Staphylococcus aureus</i> (25923)	good-luxuriant
<i>Pseudomonas aeruginosa</i> (27853)	good-luxuriant
<i>Listeria monocytogenes</i> (19118)	good-luxuriant
<i>Streptococcus faecalis</i> (29212)	good-luxuriant



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## References:

1. M.A. Sagardoy, C.M. Salerno, Studies on heterotrophic bacteria in some Argentine soils, *Anal. Edaf. Agrobiol.* 42, 2069 (1984)
2. M.L. Gray, HJ. Stafseth, F. Thorp, The use of potassium tellurite, sodium azide and acetic acide in a selective medium for the isolation of *listeria monocytogenes*, *J. Bact.*, 59, 443 (1950)
3. S. Lapage, J. Shelton, T. Mitchell (1970), *Methods in Microbiology*, J. Norris, D. Rippons (Eds.), Vol. 3A, Academic Press, London
4. J. MacFaddin (1985), *Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria*, Vol. I, Williams, Wilkins, Baltimore

